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**NORTH CAROLINA  
DEPARTMENT OF CONSERVATION AND DEVELOPMENT**

**GEO. R. ROSS, DIRECTOR**

**DIVISION OF WATER RESOURCES AND ENGINEERING**

**W.H. RILEY, HYDROLOGIC ENGINEER**

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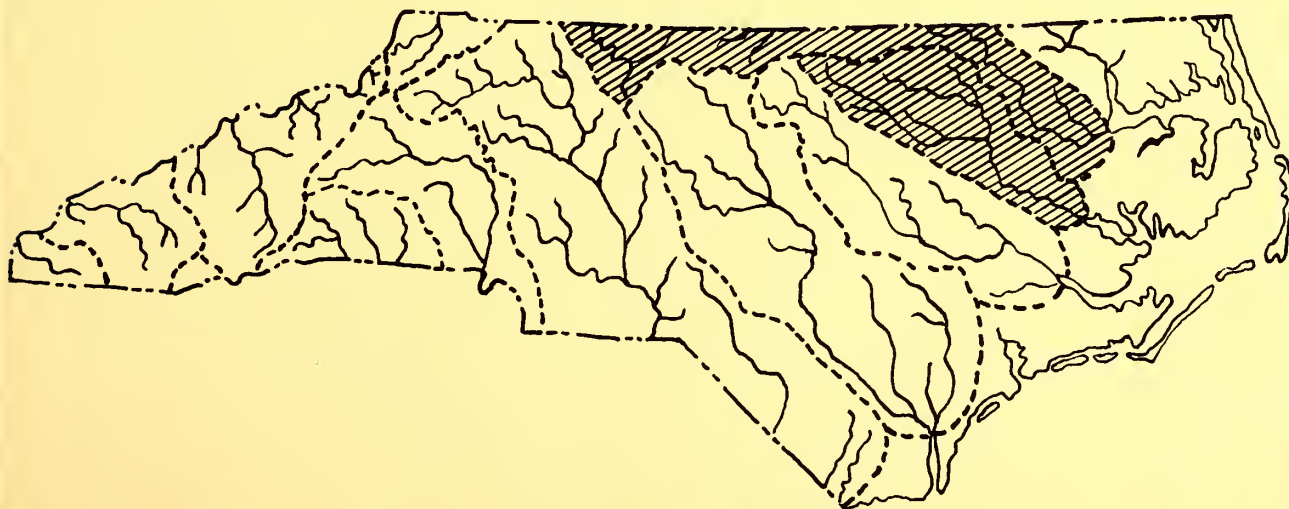
**HYDROLOGIC DATA**

**ON THE**

**ROANOKE AND TAR RIVER BASINS**

**1871-1945**

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**PREPARED IN COOPERATION WITH  
UNITED STATES GEOLOGICAL SURVEY  
AND UNITED STATES WEATHER BUREAU**

**1952**



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## FOREWORD

This is the sixth of a series of publications giving hydrologic data in the State of North Carolina. Previous publications have been released under the titles of "Hydrologic Data on the Neuse River Basin," "Hydrologic Data on the Cape Fear River Basin," "Hydrologic Data on the Yadkin-Pee Dee River Basin," "Hydrologic Data on the Catawba and Broad River Basins," and "Hydrologic Data on the French Broad River Basin". It is planned to issue similar publications on each of the river basins of the State.

The purpose of this publication is not to supply all the hydrologic information collected in the Roanoke and Tar River Basins, but to make available under one cover the information that can be readily used. Records at several Weather Bureau stations as well as at several stream flow stations are omitted as they would make the publication unnecessarily bulky and might be misleading to those that are not working with such data constantly. Full information on these stations can be obtained from the Division of Water Resources and Engineering of the Department of Conservation and Development, Raleigh, North Carolina, and its cooperating agency the U. S. Geological Survey, Raleigh, North Carolina. Complete climatological data can be obtained from the U. S. Weather Bureau, Raleigh, North Carolina.

Records of stream flow in this report have been compiled from records of the Water Resources Branch of the U. S. Geological Survey. Some of these are revised records and have not yet been published in the water-supply papers of the U. S. Geological Survey. Differences may be found between figures published in this report and those contained in official publications of the U. S. Geological Survey. The records presented herein are believed to be the latest revised figures. In such cases the matter should be checked with the district office of the Water Resources Branch, U. S. Geological Survey, Raleigh, North Carolina.

Water is one of the greatest natural resources in the Roanoke and Tar River Basins. No other resource is subject to as much misuse. With wise planning and control, water can be made man's best servant; without wise planning and control, water can be man's greatest enemy. Every drop of water that passes to the sea is a loss to the public unless it has given up its full usefulness. By better planning the uses of this great resource, it can be made to serve a larger number of people to better advantage and pay larger dividends to the whole state.

Large industries, power plants, and other large users of water have now taken practically all of the locations where there is no question as to the amount of water being adequate for their uses. Today smaller water-sheds are being developed, and without records it is difficult to estimate the dependable flow with any degree of certainty. It is useless to think that industry will make a large investment at any site unless it can be assured of having sufficient water of suitable quality to meet its demands at all times.

Industry is one of the mainstays of our civilization. It provides employment for the citizens of a community and helps support the city, county, and State governments. Water is required by most industries either to furnish power or in the processing of raw materials. Requirements for supplies of water adequate in both quantity and quality are rigid. Since most industries must operate during all periods of the year and some of the elements present in the water may damage the final product, all data possible on the supplies of water should be readily available for use. As industries grow in the State some will need to expand their present plants, others will need to build plants, and still others may need to

change from ground water to surface water. In all of these instances the information in this publication will be found very useful.

Weather conditions often have their effects upon industries and may be the deciding factor in their location. Although the records of only five Weather Bureau stations appear in this publication, they are believed to be representative of general conditions throughout the whole basin.

Quality of water is playing a large part every day in the selection of water supplies for industrial and domestic use. Certain constituents can be very harmful to the final products of a great number of manufacturers and may be costly to remove. Many industries are greatly benefited in selecting their locations where information is available on the quality of water. The Roanoke and Tar River Basins and their tributaries have water suitable for the manufacturing of many products. Users of water will find analyses of some of the public water supplies very useful.

#### ACKNOWLEDGMENT

Grateful acknowledgment is made to Mr. E. B. Rice, District Engineer of the U. S. Geological Survey, for supplying information related to stream flow; to Mr. F. H. Pauszek, District Chemist of the U. S. Geological Survey, for supplying information on quality of water; to Mr. H. E. LeGrand, Assistant Geologist of the U. S. Geological Survey, for supplying information on ground water; to Mr. G. DeMots, Section Director of the U. S. Weather Bureau, for supplying information on rainfall and temperature; and to Mrs. Sallaine S. Upchurch, who has prepared the copy for the printers and assisted in assembling the data.



## DESCRIPTION OF WATERSHEDS

Roanoke River Basin, located in Virginia and North Carolina, has a total drainage area of 9,630 square miles of which 3,375 square miles lie in North Carolina. The North Carolina portion of this basin is a long, relatively narrow strip along the northern boundary of the state with an average width of approximately 15 miles and straight line length of approximately 160 miles. This river basin enters North Carolina in the low rolling hills of the Piedmont Plateau, crosses the fall line near Gaston and flows through the Coastal Plains to empty into Albemarle Sound near Plymouth.

The Roanoke River rises in the Alleghany Mountains west of Roanoke, Virginia, and flows generally southeasterly for 400 miles, emptying into the western part of Albemarle Sound. It enters North Carolina in Warren County and forms the dividing line between Halifax and Martin Counties on its right, and Northampton and Bertie on its left. The total length of the Roanoke River is about 400 miles, of which only 160 miles lie in North Carolina.

There are no lunar tides in Albemarle Sound, but oscillations occur in its surface due to wind, which persist upstream to Williamston and beyond. These wind tides have a maximum range at Williamston of about two feet above, and 1.5 feet below, near sea level. From Clarksville, Virginia to Roanoke Rapids, North Carolina, the river has a fall of 158 feet in a distance of 60 miles; from Roanoke Rapids to Weldon, a distance of 10 miles, it has a fall of 80 feet; from Weldon to Hamilton, a distance of 70 miles, it has a fall of 22 feet; and below Hamilton to its mouth, a distance of 60 miles, it is at sea level.

The principal tributary to the Roanoke River is the Dan River. This river rises in Patrick County, Virginia, and flows in a southeasterly direction to enter North Carolina in Surry County. It flows thence east and northeast, leaving the state and joining the Roanoke River at Clarksville, in Mecklenburg County, Virginia. It has a total length of about 210 miles, of which about 95 miles lie in North Carolina. The fall of this river from Joyces Mill highway bridge to Clemmons Ford highway bridge, a distance of 18 miles, is 305 feet; from Clemmons highway bridge to Madison, a distance of 40 miles, is 220 feet; and from Madison to Danville and Western Railway Bridge, a distance of 39 miles, is 95 feet.

The Tar River Basin lies entirely in the State of North Carolina. This drainage basin is oblong in shape, its greatest width being about 45 miles and its total length about 120 miles. It is the smallest of the three river basins which lie entirely within the State of North Carolina. The drainage area of the Tar River Basin above the Town of Washington is 3,075 square miles. The main stream flows near the southern boundary of the area, most of its drainage being to the north. The divide on the south is seldom more than 5 to 10 miles distant from the stream.

Tar River rises in the Piedmont Plateau of North Carolina, having its source in Person County near the Town of Mill Creek. It flows in a general southeasterly direction through the Piedmont region and the Coastal Plain of North Carolina, emptying into the Pamlico River at Washington. It has a total length of 179 miles. The elevation of the source of the stream is approximately 550 feet above mean sea level. It empties into the Pamlico River at sea level. From its source to the Town of Rocky Mount it flows through the Piedmont Plateau and drops 465 feet in a distance of 99 miles. At Rocky Mount there is a vertical fall of 27 feet where it crosses the fall line and enters the Coastal Plain. It flows 80 miles through the Coastal Plain to its mouth, with a total drop of 58 feet.

Principal tributaries of the Tar River are Fishing Creek and Swift Creek.

Fishing Creek, the Principal tributary to Tar River, rises in the east central portion of Vance County. It flows east, southeast, and south for a straight-line distance of approximately 50 miles and enters the Tar River from the left bank a short distance above Tarboro. Above this point it has a drainage area of 760 square miles. Fishing Creek crosses the fall line above the Town of Enfield.

Swift Creek rises in the southern part of Vance County, where it is called Sandy Creek, and flows southeasterly generally parallel to Fishing Creek to enter the Tar River from the left bank seven miles above the mouth of Fishing Creek. It has a straight-line length of approximately 50 miles and a drainage area of approximately 350 square miles above its mouth.

### STREAM FLOW

The flow of the Roanoke and Tar Rivers and their tributaries has been measured by a total of 18 gaging stations. The Roanoke River has had a total of 13 gaging stations, two of which are used only for determining the slope and therefore show no discharge figures. A chart showing all stations with their period of record can be found on page 8. On page 9 will be found a map showing the approximate location of all stations listed. No attempt has been made to publish all records in these basins since very short records have been found to be very confusing and are often misused. It was felt advisable to publish records from stations that have a record of at least 10 years or else are operating at the time this report is assembled. Data on short records and daily discharge can be secured from either the Division of Water Resources and Engineering, Department of Conservation and Development, Raleigh, North Carolina; or from the Surface Water Branch of the U. S. Geological Survey, Raleigh, North Carolina.

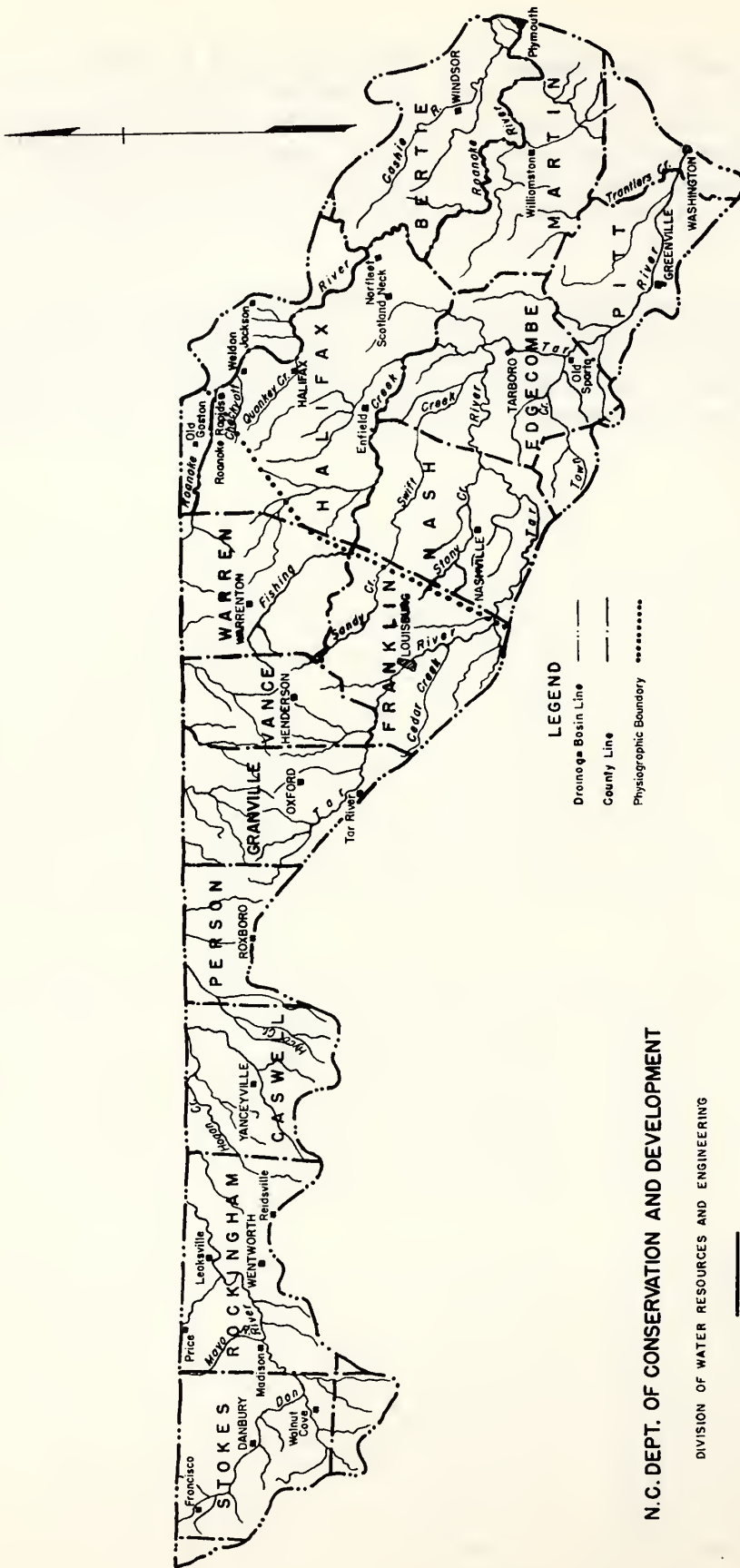
The longest record in the Roanoke and Tar River Basins is found on Fishing Creek near Enfield. This record has been continuous since 1918 or for a period of 27 years. Although this is the longest record at any single station, a longer record can be secured by combining the records of the Roanoke River at Old Gaston and at Roanoke Rapids. These stations were located a few miles apart, with no tributaries of any importance between, and with a difference in drainage area of less than one per cent. The station at Old Gaston was established in 1911 and operated until 1932, while the one at Roanoke Rapids was established in 1930 and is operating today. Between these stations a record can be obtained for a period of 34 years.

No attempt has been made to include daily discharge records since these are published in the water-supply papers of the U. S. Geological Survey each year. Daily discharge records for the whole period of record or any part of it may be obtained from the Division of Water Resources and Engineering of the Department of Conservation and Development, Raleigh, North Carolina, or from the Surface Water Branch of the U. S. Geological Survey, Raleigh, North Carolina. In place of the daily discharge records, tables of average weekly discharge are shown. Weekly discharge figures have been found very useful in studying long records. Critical points can easily be located and if further investigation is necessary daily records for this period can be secured. Computations of weekly discharge have been made by averaging the daily discharge for consecutive seven-day periods. In every year one eight-day period has been used at the last of December. When leap years intervene the extra day has been included in the eight-day period covering the last of February and the first of March. The seven-day periods used have been the same seven calendar days for each year.



Maximum and minimum daily discharges have been tabulated in separate tables for each month of each year of record. In another table will be found the mean monthly discharge for each year of record. These tables were set up in this form as the records were believed to be more useful when grouped together in individual tables. For example, the minimum flow may be easily selected for the station desired by looking under the table for minimum discharge for the station.

During very dry seasons and often during floods a number of miscellaneous measurements are made at points where there are no gaging stations. These measurements are very useful in estimating the flow on the streams that have no established stream gaging stations. A tabulation of all miscellaneous measurements giving their dates and discharge will be found at the end of this section.



# LEGEND

- Drainage Basin Line
- County Line
- Physiographic Boundary

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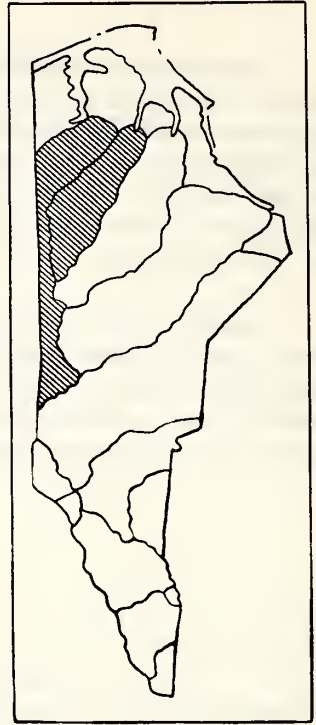
DIVISION OF WATER RESOURCES AND ENGINEERING

MAP OF

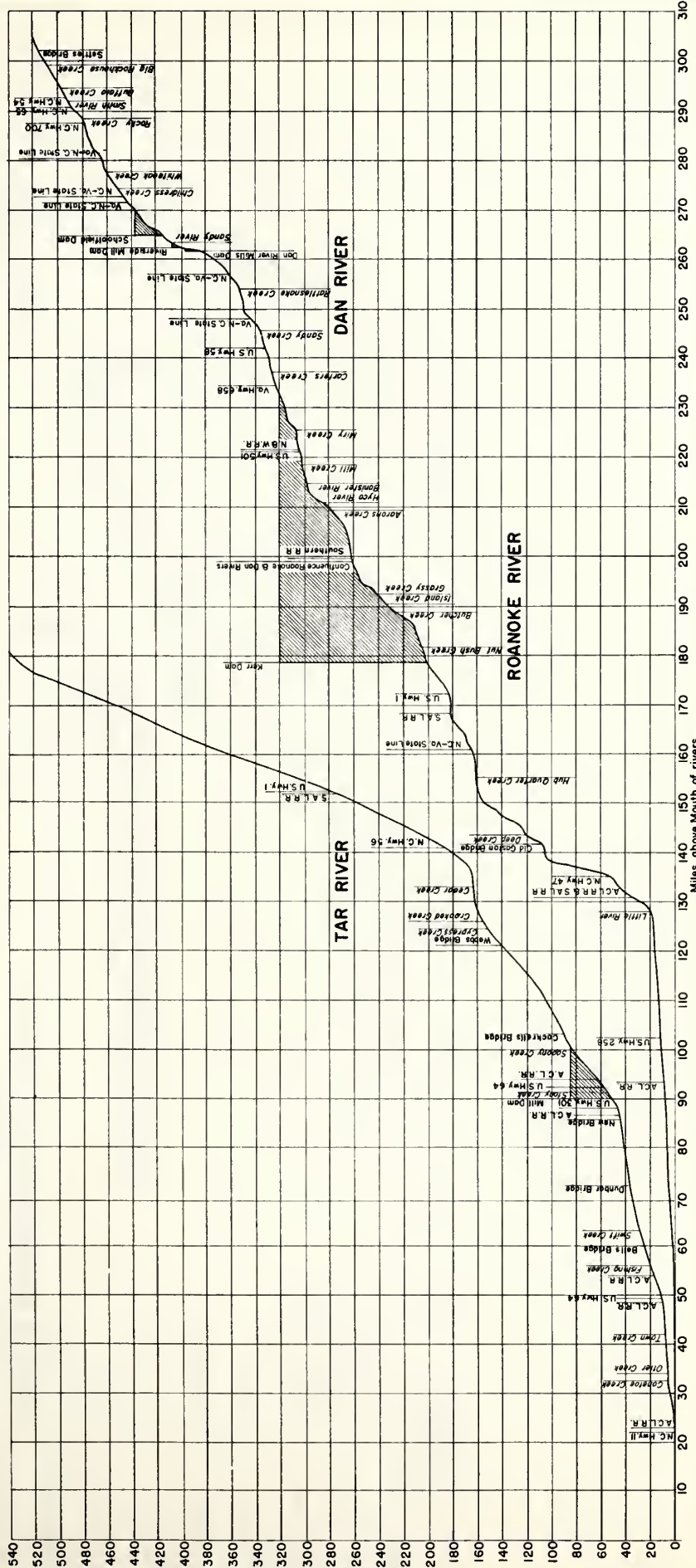
ROANOKE AND TAR RIVER BASINS

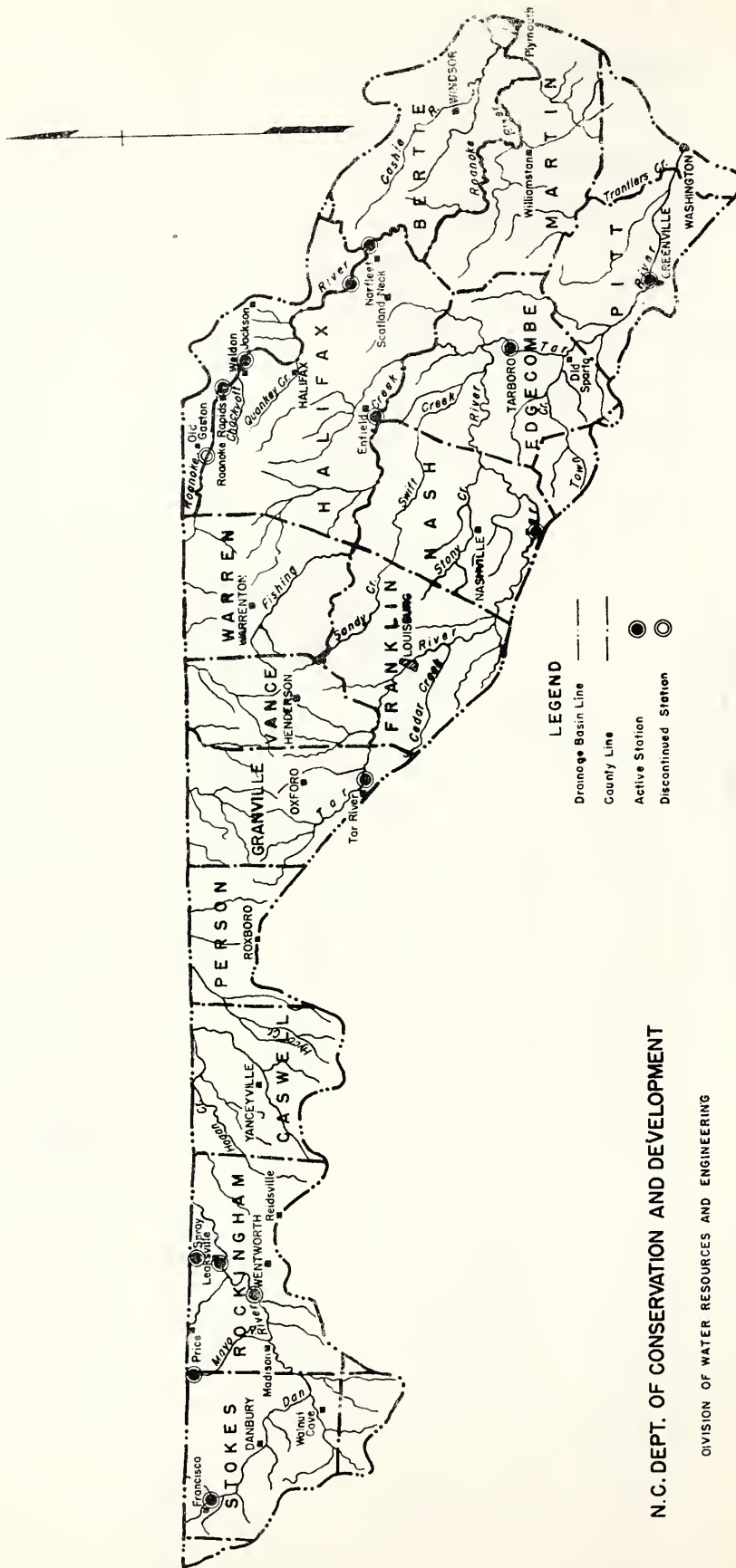
SHOWING

PHYSIOGRAPHIC REGIONS

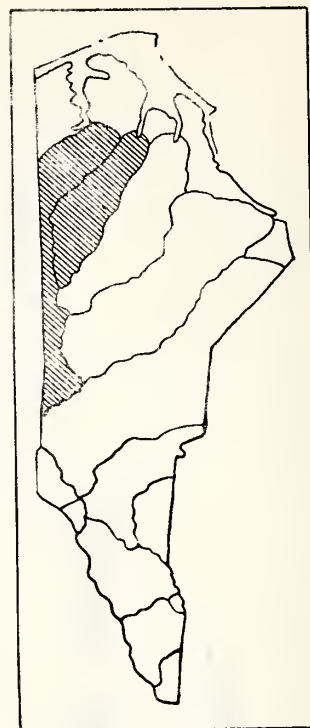
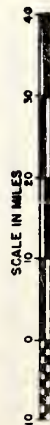


**NORTH CAROLINA**







# N.C. DEPT. OF CONSERVATION AND DEVELOPMENT DIVISION OF WATER RESOURCES AND ENGINEERING MAP OF ROANOKE AND TAR RIVER BASINS SHOWING STREAM GAGING STATIONS





# STREAM GAGING STATIONS IN THE ROANOKE AND TAR RIVER BASINS SHOWING RECORDS AVAILABLE

Records Published 

Records Not Published 

ROANOKE RIVER BASIN											
Roanoke River at Old Gaston											
Roanoke River at Roanoke Rapids											
Roanoke River nr. Scotland Neck											
Roanoke River at Neal											
Dan River nr. Asbury											
Dan River nr. Francisco											
Dan River at Pine Hall											
Dan River at Madison											
Dan River at Wenthworth											
Dan River at Leaksville											
Mayo River nr. Price											
Smith River at Spray											
TAR RIVER BASIN											
Tar River at Tar River											
Tar River nr. Nashville											
Tar River at Tarboro											
Fishing Creek nr. Enfield											

1945

1935

1925

1915

1905

1895

# Roanoke River at Old Gaston, N. C.

Location.- Chain gage at bridge of Roanoke Railroad Co. at Old Gaston, Northampton County, three quarters of a mile below Indian Creek. Water-stage recorder at same location Oct. 1 to Apr. 7.

Drainage area.- 8,350 square miles.

Records available.- December 1911 to December 1932 (discontinued).

Extremes.- 1911-32: Maximum discharge, 140,000 million gallons per day Mar. 18, 1912 (gage height, 16.6 feet); minimum discharge 313 million gallons per day Sept. 21, 1932.

Remarks.- Records good. Slight diurnal fluctuation caused by operation of power plant several miles above.

Mean Monthly Discharge in Million Gallons per day

Year	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Yearly Mean
1911												8333	
1912	4767	9432	24548	8010	10917	3947	3514	1421	2881	1686	3417	2319	6408
1913	4677	3236	13114	7235	6266	4451	3379	2791	4128	3973	5368	4923	5310
1914	6525	9884	7106	5820	3185	1925	4289	1531	956	2287	2287	8850	4554
1915	15116	10659	5904	4690	2842	6783	2132	6783	5246	6202	2461	5090	6159
1916	5743	9561	3941	4238	4780	7106	7171	4826	1576	2513	1609	2500	4631
1917	5510	5013	16925	6324	3669	4903	5795	1970	3043	1634	2054	1415	4855
1918	5859	7817	4477	13631	5995	3010	2720	2946	2681	1454	3301	7623	5126
1919	11305	6589	9302	5439	7300	8204	16473	4360	1512	2054	2028	2687	6438
1920	3043	10465	7235	7752	3301	4587	3372	5827	2306	1995	6176	11886	5662
1921	10530	11111	5368	5536	5362	3301	2907	1570	1479	1014	3269	2494	4492
1922	3966	14083	15310	5123	8527	6460	6783	3450	2041	3198	1860	3165	6163
1923	5769	8398	17377	7364	3941	2901	2662	5181	5401	1893	2448	4083	5601
1924	9109	5924	7235	8398	12920	4729	6040	2829	3385	8915	3831	5917	6654
1925	15504	7364	4742	3469	5233	2100	1667	1789	1609	1802	2655	3062	4244
1926	6912	9561	4632	4864	2158	1499	2623	1705	1118	1118	2855	6848	3792
1927	3792	8140	5407	6654	2610	2500	3540	3669	2022	5026	3088	10336	4716
1928	4903	6441	5665	8656	4931	2720	2739	15310	14406	3921	2881	2752	6266
1929	3224	6382	14083	8204	6008	6376	4923	3889	2474	12726	6047	5355	6654
1930	6008	6912	4935	4012	2726	2610	1389	872	665	599	1466	2138	2833
1931	3249	2074	3740	7687	5504	2926	2429	6912	1667	859	975	2048	3346
1932	6848	5220	10465	5814	3411	2771	1227	995	623	7171	8075	10078	5238
Max.	15504	14083	24548	13631	12920	8204	16473	15310	14406	12726	8075	11886	6654
Min.	3043	2074	3740	3469	2158	1499	1227	872	623	599	975	1415	2833
Mean	6779	7822	9120	6615	5316	4086	4180	3839	2915	3430	3245	5177	5197



# Roanoke River at Old Gaston, N. C.

## Maximum Daily Discharge in Million Gallons per day

Year	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Yearly Max.
1911												24400	
1912	15800	32500	136000	44400	50400	9690	10500	2310	17700	2310	23300	3320	136000
1913	16200	6430	75600	34400	31800	8400	12000	7040	18700	14300	33100	14300	75600
1914	29300	28700	10700	10700	6140	4530	17700	3200	2000	13800	7690	26200	29300
1915	46700	37100	11600	8400	4780	39300	4030	25100	16200	26200	9500	26200	46700
1916	25100	43900	6430	9500	26900	34400	23800	10300	2240	9500	2340	4180	43900
1917	9880	10700	49800	25600	6720	22700	16200	6130	9170	5300	7690	4280	49800
1918	25100	20900	3720	46700	15700	8400	7360	6140	6430	6720	9500	27500	46700
1919	59200	15200	30600	12300	17200	29300	71100	14700	2640	4530	5040	8790	71100
1920	8790	48700	13200	22100	5850	16200	8030	24400	4530	7110	33700	38600	48700
1921	33000	35700	8080	15200	20800	7430	5810	7110	6140	1890	20200	3820	35700
1922	10300	31700	44800	9500	29300	17100	24200	7430	4300	14200	2180	6140	44800
1923	12400	13200	75000	23400	10100	6460	4990	19400	19400	2610	5260	17800	75000
1924	38000	19400	14300	16700	41200	8910	24500	6460	35100	53500	8910	25200	53500
1925	46400	16200	6780	4460	20500	3030	3250	3950	5740	3710	8910	7490	46400
1926	36500	24500	7110	11200	3030	2420	9040	2610	2610	2040	8910	31500	36500
1927	11600	32200	10900	12900	3950	4460	9300	16200	3710	25800	14300	35700	35700
1928	8530	15200	18300	46400	19400	5260	6460	75600	50300	8200	3250	3480	75600
1929	4200	30600	44600	35000	12900	14700	12500	7820	4720	63700	14900	10900	63700
1930	10900	21100	20200	8850	5440	4590	2650	1920	853	1030	2650	6350	21100
1931	11600	3290	12000	23300	14500	8140	4730	25000	4190	1490	1290	6350	25000
1932	32400	12900	47300	12500	6230	9560	2070	2260	1940	57500	21100	40200	57500
Max.	59200	48700	136000	46700	50400	39300	71100	75600	50300	63700	33700	40200	136000
Min.	4200	3290	6430	4460	3030	2420	2070	1850	853	1030	1290	3320	21100
Mean	23329	23958	31086	20872	16826	12618	13346	13099	10505	15497	11606	16941	53157

## Minimum Daily Discharge in Million Gallons per day

Year	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Yearly Min.
1911												1590	
1912	2580	2420	5440	4530	3550	2530	1300	808	510	969	1400	1690	510
1913	2200	2200	2640	2860	2100	2200	1400	1300	1050	808	1790	2200	808
1914	2860	4780	5300	3790	1890	1130	885	808	581	510	808	1300	510
1915	5850	3090	2640	2860	581	1130	1300	1400	1400	1940	801	1030	581
1916	2240	3450	2040	2040	1360	2040	1200	2140	581	879	879	956	581
1917	2880	2240	4700	2240	1030	1540	2140	879	581	581	885	581	581
1918	581	3320	2860	2860	2420	1210	1400	885	885	581	1400	1790	581
1919	3090	3550	3550	2420	3090	2200	2000	885	885	885	1210	1210	885
1920	885	3550	2860	4030	2200	1590	1400	1210	885	866	1180	4570	866
1921	3590	5170	4060	3360	2920	1890	1350	575	575	575	1020	1800	575
1922	1520	4870	4870	3590	3820	2700	3360	1890	1270	1020	1520	1620	1020
1923	2700	3590	4870	3950	2820	1870	1540	2220	1710	1620	1780	2320	1540
1924	3030	3030	4460	4460	4460	2820	2220	1870	1400	2420	2420	2820	1400
1925	5840	4720	3480	3030	2610	1470	982	924	808	924	1670	1540	808
1926	1620	3950	3250	2820	1470	1180	1110	1250	646	743	1110	1870	646
1927	2610	2420	3030	3950	1950	1620	1540	1540	1250	1180	1540	2150	1180
1928	3250	4200	3250	2800	2820	1950	1320	1250	3710	2820	2510	2220	1250
1929	2420	2420	5260	3710	3710	3480	2510	2220	1870	2440	3670	3670	1870
1930	3540	3670	3180	2620	1770	1350	788	497	401	420	1000	1030	401
1931	1870	1550	1950	2380	2420	1470	1050	1920	866	749	782	988	749
1932	2180	2750	2440	3100	2040	1380	801	419	326	618	3290	2450	326
Max.	5850	5170	5440	4530	4460	3480	3360	2220	3710	2820	3670	4570	1870
Min.	581	1550	1950	2040	581	1130	788	419	326	420	782	581	326
Mean	2730	3378	3625	3232	2430	1864	1505	1280	1057	1121	1565	1882	841

Roanoke River at Old Gaston, N. C.

Mean Weekly Discharge in Million Gallons per day

Week Ending	1911	1912	1913	1914	1915	1916	1917	1918
Jan. 7		6130	4140	14000	9470	9110	4530	603
14		3140	3050	5520	30000	5960	4940	4500
21		3620	2420	3490	16200	5030	6010	8660
28		4840	5240	3310	8600	3620	5500	3400
Feb. 4		8270	8770	6110	15500	13600	7740	16000
11		3320	3690	10300	11400	13500	3700	10200
18		4010	2720	5850	5720	4990	3000	7500
25		13500	2400	16200	5780	4190	5630	4610
Mar. 4		16200	6550	7160	10600	7200	16200	3730
11		9510	3590	5760	8460	4440	30500	5240
18		50200	35200	8640	5950	3490	7590	4080
25		21600	7880	8000	5050	3260	13300	4000
Apr. 1		28600	7750	5790	3600	3770	11400	5180
8		9290	5460	5830	6350	3910	10700	3530
15		5840	11700	4910	5540	7420	7760	19700
22		5580	7760	7620	4150	2920	4260	11000
29		6630	3800	5190	3140	2850	3160	22200
May 6		5750	3060	3540	2890	2780	4320	7940
13		8370	2390	4350	3480	3510	5760	4230
20		26900	2720	3420	2980	2560	3030	8030
27		5760	13900	2250	2190	9510	1740	4790
June 3		3760	8400	2270	8450	5700	2940	4150
10		3600	4500	1870	9490	6900	4040	2360
17		3310	4040	1650	3080	8990	10900	2060
24		3780	2990	1570	2730	8670	2340	2050
July 1		5700	6350	2630	1610	3890	3060	5570
8		5960	6090	4550	2160	4090	3190	2220
15		3300	3160	3160	2290	3230	2690	2200
22		2630	2480	8270	1990	7590	5000	3550
29		2210	1880	1710	2350	14100	13000	2670
Aug. 5		1630	2830	2440	3720	6190	3850	4210
12		1650	2940	1850	3750	6640	2120	1470
19		1350	3490	1280	10100	5320	1490	2550
26		1230	2100	1000	5190	3920	1490	3780
Sept. 2		1220	2610	1490	11200	2350	2710	2820
9		975	9690	1220	11600	1920	5810	2630
16		1090	1760	813	4150	1150	3190	2690
23		2200	2040	668	2180	1640	1180	2770
30		7760	3010	865	1710	1400	1260	2520
Oct. 7		1910	1330	618	11500	2000	1110	1430
14		1410	2760	1670	7980	1820	1690	801
21		1780	2150	5450	3080	2750	1470	963
28		1710	9530	1690	3820	3820	1640	1150
Nov. 4		1630	3150	1360	2220	1590	4170	5130
11		7490	9250	1410	1860	1650	1690	2620
18		2930	7400	3530	1850	1980	1260	1890
25		1980	3460	2920	4610	1460	1540	4390
Dec. 2		1810	2360	1660	1790	1460	2270	4130
9		2400	7180	11500	2270	1690	2560	3710
16	2280	2450	3220	6650	1760	2670	767	2380
23	10600	1970	2360	5720	9660	1980	1370	10800
31	13900	2560	7240	13000	7160	3680	694	13100
Maximum		50200	35200	16200	30000	14100	30500	22200
Minimum		975	1330	618	1610	1150	694	603



Roanoke River at Old Gaston, N. C.

Mean Weekly Discharge in Million Gallons per day

Week Ending	1919	1920	1921	1922	1923	1924	1925	1926
Jan. 7	26200	930	4490	1980	7300	8200	17700	3090
14	5590	2410	14600	4420	5390	5310	24200	3170
21	6670	2660	16000	3530	3050	18300	14000	14800
28	8320	4000	8790	6270	5110	6430	10100	7810
Feb. 4	5840	10500	7600	10400	9100	4460	7330	11800
11	4540	23600	7710	20900	10600	4170	7160	11500
18	5750	6150	16500	13900	11200	3320	10300	4460
25	8420	4110	12400	9430	4610	11200	5230	7240
Mar. 4	13000	4050	6230	14100	8870	6500	4610	8230
11	14800	5960	5110	25900	12600	5560	4620	4470
18	9120	8320	5860	16800	21000	7860	4200	5730
25	4790	11000	4560	8120	31200	7990	5940	3890
Apr. 1	5210	5480	5700	6770	6570	9130	4430	3780
8	4360	12600	5370	6810	6200	9410	3580	4470
15	6650	7780	4470	4450	10200	8580	3440	6160
22	6320	4690	7870	4800	8140	9590	3220	6060
29	4740	6240	4640	4150	4620	5350	3350	3170
May 6	5990	4070	4040	5330	6820	6730	4920	2530
13	7820	3740	5360	7870	3680	18700	3650	2210
20	6560	3230	8410	12300	3690	11000	10100	2550
27	7750	3090	3400	10000	3190	15900	3490	1800
June 3	6580	2210	4780	4530	3000	7640	2660	1570
10	9620	7420	5130	10800	2330	4560	2180	1660
17	6880	2490	2460	4200	4250	5650	2090	1320
24	2970	4470	2570	8120	2710	4950	2050	1230
July 1	15000	4810	2820	3440	2020	4070	2110	1680
8	4650	1970	3250	8030	1770	6220	1820	1890
15	3470	4090	2930	4420	3230	11700	1790	1800
22	35800	5040	3840	10900	3090	4030	1630	2370
29	26700	3060	1840	5010	2200	3140	1350	4410
Aug. 5	7520	1370	3470	3140	9540	2940	1460	2160
12	3770	3810	1450	2800	4860	3720	2080	1770
19	5500	6350	1230	4760	3510	2620	2530	1380
26	3020	11700	959	2650	4410	2030	1440	1800
Sept. 2	1600	3800	595	3790	2610	2460	960	1740
9	1790	2210	741	2840	4710	2190	1100	1280
16	1200	2420	2460	2250	4810	1440	1220	1560
23	1230	1170	1020	1700	3600	1790	3190	891
30	1530	3300	1940	1360	9300	8530	1140	733
Oct. 7	978	4380	1430	1250	2110	27100	1190	947
14	1030	1440	1020	6190	1730	3650	1150	1090
21	3400	1180	913	3650	1670	2970	2300	1060
28	2740	1230	760	2270	2050	2970	2280	1240
Nov. 4	1850	1460	5270	1890	1910	4590	2130	1300
11	1540	1480	2630	1780	3340	2760	1940	1320
18	2590	6650	2230	1910	2330	2790	4510	3120
25	2120	7670	2670	1960	2090	5080	2420	5080
Dec. 2	2160	19600	2420	1690	2350	4820	1980	2830
9	2120	13500	3140	2020	6990	3620	3360	2090
16	5200	13600	2050	2640	3570	10700	2380	3610
23	2260	6980	2090	4620	3130	3950	2870	3620
31	1480	7540	2570	3750	3230	6090	3850	17600
Maximum	35800	23600	16500	25900	31200	27100	24200	17600
Minimum	978	930	595	1250	1670	1440	960	733

Roanoke River at Old Gaston, N. C.

Mean Weekly Discharge in Million Gallons per day

Week Ending	1927	1928	1929	1930	1931	1932		
Jan. 7	6130	4000	2700	5560	3200	3750		
14	2910	4680	3720	3930	5100	18700		
21	3630	4200	3120	8850	2860	3720		
28	2940	6740	3190	6180	2390	2450		
Feb. 4	2970	5000	3200	5800	1820	6030		
11	2730	8450	5170	12700	1670	7950		
18	5750	6880	5310	5490	1980	4140		
25	18700	5700	5310	4070	2760	3430		
Mar. 4	6580	4250	27400	3570	2520	2720		
11	8450	3770	21100	7750	2660	26000		
18	5220	5940	7680	4950	2310	4840		
25	4440	9620	7510	4210	4040	5230		
Apr. 1	3320	4200	7500	3460	7170	10200		
8	7130	3870	4620	5030	16000	7300		
15	8620	10400	4680	4740	7620	7360		
22	5070	5350	17200	3600	3090	4580		
29	6600	11600	5870	2980	4410	3730		
May 6	3580	13500	9850	2640	3000	3810		
13	2750	4860	5280	2360	7620	2650		
20	2240	3320	5400	3060	3290	4040		
27	2230	3680	5240	3310	9170	2580		
June 3	2430	2930	4840	2060	3710	3290		
10	2720	3870	5040	2100	3060	1540		
17	2790	2500	9050	3300	1950	5190		
24	2500	2160	4820	2960	2970	2710		
July 1	1850	2740	7180	2130	2760	1650		
8	2160	2480	4000	1580	2220	1430		
15	5560	2890	6750	1060	3070	1190		
22	4620	3680	6530	1790	1740	1260		
29	2600	1940	3020	1200	2880	930		
Aug. 5	2820	1480	3480	982	4260	1330		
12	2290	3140	2890	1150	6720	1650		
19	1970	39300	4980	814	6910	859		
26	7680	19000	3780	698	10200	586		
Sept. 2	2830	5700	4000	659	4010	452		
9	2560	18300	2310	537	2330	1060		
16	2290	7270	2290	672	1200	584		
23	1670	28000	2770	736	937	360		
30	1310	7160	2100	730	1960	539		
Oct. 7	8880	5880	38300	573	1040	932		
14	4170	3480	3950	440	788	1690		
21	6100	3090	2680	629	853	22800		
28	2340	3600	9950	613	788	4820		
Nov. 4	1760	3030	4090	1100	930	8650		
11	1710	2940	5980	1740	891	9320		
18	2370	2830	5050	1230	924	6800		
25	6540	2970	8010	1800	1040	7370		
Dec. 2	2280	2660	5600	1100	1030	5480		
9	21600	2730	7360	2170	1220	3090		
16	10100	2530	4170	2380	1930	6000		
23	9430	3190	4680	1510	1760	6140		
31	3550	2600	5480	2720	3370	24600		
Maximum	21600	39800	38300	12700	16000	26000		
Minimum	1310	1480	2100	440	788	360		



# Roanoke River at Roanoke Rapids, N. C.

Location.- Water-stage recorder, lat. 36°28'15", long. 77°38'05", 1½ miles downstream from State Highway 47 at Roanoke Rapids, Halifax County. Datum of gage is 43.79 feet above mean sea level, datum of 1929, supplementary adjustment of 1936. Auxiliary water-stage recorder at bridge on U. S. Highway 301, 3.4 miles downstream. Datum of auxiliary gage is 16.06 feet above mean sea level, datum of 1929, supplementary adjustment of 1936.

Drainage area.- 8,410 square miles.

Records available.- February 1930 to date. December 1911 to December 1932 at site 9 miles upstream, published as Roanoke River at Old Gaston.

Average discharge.- 16 years, 5,662 million gallons per day.

Extremes.- 1930-45: Maximum discharge, 169,000 million gallons per day Aug. 18, 1940 (gage height, 39.0 feet, from floodmarks); minimum discharge, 296 million gallons per day (regulated) Sept. 21, 1932 (gage height, 1.25 feet); minimum daily, 305 million gallons per day (regulated) Sept. 21, 1932.

Remarks.- Records excellent above 3,230 million gallons per day and good below. Diurnal fluctuation at low flow caused by power plant above station. Discharge during floods computed, using submergence as determined by auxiliary gage as a factor.

Mean Monthly Discharge in Million Gallons per day

Year	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Yearly Mean
1930		4205	4845	4063	2707	2655	1344	872	685	607	1505	2177	
1931	3320	2035	3792	7752	5601	3094	2532	6718	1712	859	969	2054	3377
1932	6848	5317	10594	5917	3411	2771	1227	1001	659	7106	8269	9755	5251
1933	8463	8592	6460	8463	5614	3359	2390	2442	1305	859	1202	1705	4208
1934	1899	2164	12145	10078	4335	4884	2351	3204	8527	3468	3633	12125	5754
1935	9671	7048	10711	12817	4433	3313	3796	2143	5210	1634	4140	4005	5725
1936	24961	14231	15233	13198	3928	3426	2783	3010	1446	4054	1976	5045	7817
1937	22759	9322	5528	11014	5435	4407	4076	9018	7642	15853	6351	4821	8863
1938	7487	5016	6235	4819	3402	11505	13941	5198	2474	1924	4417	5408	5996
1939	4926	12584	11144	5789	4928	3196	5906	8973	2393	2107	2756	2812	5592
1940	3492	9296	4831	7364	3913	6176	3127	25188	4180	2211	5884	4113	6641
1941	5892	3802	4759	6324	2260	2390	7016	2156	1629	934	1266	2179	3386
1942	2512	3807	4939	2499	6899	5039	3275	8740	3618	6334	3478	5410	4732
1943	7946	11163	8954	7681	4527	4956	5756	2053	1658	1357	1992	2022	4965
1944	4665	7481	12959	9567	4948	2572	2795	2233	10407	10233	3732	5999	6459
1945	7584	8999	5768	4776	5025	2658	5440	3512	13876	3145	3567	9968	6170
Max.	24961	14231	15233	13198	6899	11505	13941	25188	13876	15853	8269	12125	8863
Min.	1899	2035	3792	2499	2260	2390	1227	872	659	607	969	1705	3377
Mean	8162	7191	8056	7633	4460	4150	4235	5404	4214	3918	3446	4975	5662

Roanoke River at Roanoke Rapids, N. C.

Maximum Daily Discharge in Million Gallons per day

Year	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Yearly Max.
1930		4880	14800	8790	5460	4590	2620	2040	872	995	2490	5990	
1931	11800	3350	12000	21800	13400	8080	5120	21500	4560	1640	1250	6460	21800
1932	33700	13200	47400	12900	6230	9560	2110	2270	1980	55700	18700	37100	55700
1933	22400	15600	16200	21100	12900	13400	6520	4620	3170	1380	1690	4490	22400
1934	2890	7620	38000	37900	10300	12000	5870	7170	33100	13600	45900	59300	59300
1935	37000	16200	32200	29100	5920	7620	6250	3710	25500	3900	13000	12000	37000
1936	64600	54900	64600	37300	5360	9430	4970	10700	2290	21300	2420	9950	64600
1937	57400	19400	6910	55000	13400	7880	7880	32700	34600	67200	14900	8330	67200
1938	13800	7040	12900	11600	6590	42300	63400	11600	4260	2590	18000	13800	63400
1939	8140	30600	26700	10700	22000	6340	11600	41600	7820	4840	5040	7820	41600
1940	11800	23300	8330	18000	10700	23300	5450	164000	14000	2580	24900	17200	164000
1941	11800	6780	9110	23600	3310	4840	16200	3380	4080	1270	1600	4130	23600
1942	5700	12300	17100	4570	31700	19400	7690	32500	10800	21700	8330	24100	32500
1943	29700	33700	19600	31400	9240	13600	18100	3430	2290	1670	5090	7040	33700
1944	16400	24700	25700	26100	15400	3790	6340	9750	78800	40400	13600	13600	78800
1945	18900	20000	11200	10700	13200	4020	21000	8460	73600	4630	10000	28800	73600
Max.	64600	54900	64600	55000	31700	42300	63400	164000	78800	67200	45900	59300	164000
Min.	2890	3350	8330	4570	3310	3790	2110	2040	872	995	1250	4130	21800
Mean	23202	18367	22672	22535	11569	11884	11945	22464	18858	15337	11682	16257	55947

Minimum Daily Discharge in Million Gallons per day

Year	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Yearly Min.
1930		3770	3280	2680	1750	1640	833	628	477	419	988	1040	
1931	1930	1480	1980	2750	2550	1480	853	2110	930	691	736	1000	691
1932	2040	2890	2490	3110	2040	1360	801	420	305	782	3180	2750	305
1933	4220	5070	3950	4130	3180	1430	1340	1120	601	621	872	1160	601
1934	1340	1340	3040	3350	1980	1810	1290	1250	1340	1500	1410	3270	1250
1935	3990	4420	4600	4790	3270	1850	1910	1450	1410	1410	1800	1740	1410
1936	2220	6460	5160	5490	1850	2220	1740	1320	1070	1410	1740	1690	1070
1937	6650	5570	4040	3870	3380	2630	2350	2150	2290	3070	4260	3750	2150
1938	4550	4080	4260	3070	2400	3220	2930	2090	1690	1630	1910	2930	1630
1939	3440	5660	4840	3810	2710	1870	2030	1920	1530	1620	1870	1920	1530
1940	1430	2710	3230	3550	2520	2580	2030	2360	2270	1920	2330	2520	1430
1941	3480	2860	2860	3070	1400	1400	2030	1400	879	801	1140	1270	801
1942	1270	2090	2390	1700	1490	2690	1650	1500	1800	2160	2290	3050	1270
1943	3430	4230	3820	4060	3430	2160	2690	1340	1160	1160	1520	1030	1030
1944	2290	1930	6110	4340	3190	1620	1340	1080	801	2620	2560	3630	801
1945	3860	3050	3630	3050	2910	1710	1560	1670	1470	2360	2300	3700	1470
Max.	6650	6460	6110	5490	3430	3220	2930	2360	2290	3070	4260	3750	2150
Min.	1270	1340	1980	1700	1400	1380	801	420	305	419	736	1000	305
Mean	3076	3601	3729	3551	2503	1981	1711	1488	1251	1511	1932	2278	1163



# Roanoke River at Roanoke Rapids, N. C.

## Mean Weekly Discharge in Million Gallons per day

Week Ending	1930	1931	1932	1933	1934	1935	1936	1937	1938	1939
Jan. 7		3110	3790	10900	1890	6910	30600	35100	5930	4300
14		5370	19000	10000	2470	7240	25200	10200	9750	3800
21		2880	3720	5980	1870	5240	23100	22700	5100	6290
28		2480	2400	6850	1590	20700	28400	25300	9500	5090
Feb. 4		1810	5800	6980	1560	5940	7240	16700	6250	7950
11		1580	8080	8080	1940	5170	10100	8790	4750	11700
18		1930	4330	11000	1650	10800	30600	7170	4350	21100
25	4240	2780	3530	9430	1720	6650	12900	8660	4950	7820
Mar. 4	3610	2510	2890	5230	6980	5920	6300	7170	5310	16800
11	6910	2760	26200	4570	20700	5300	5530	5840	6910	10700
18	5170	2420	5210	5060	4500	16600	11600	5390	8400	13600
25	4360	3980	5370	11600	8400	6720	34600	5370	5760	7170
Apr. 1	3500	7360	10000	5510	17500	17100	14000	4720	4460	6650
8	4940	15300	7690	4710	7110	19400	18900	7490	4300	7620
15	4970	8400	7360	8140	19000	17200	22000	6180	7620	5570
22	3630	3150	4590	14100	9880	8200	7560	4210	4160	4980
29	3020	4530	3750	7880	4720	7560	5810	26900	3570	4400
May 6	2690	3060	3840	4920	3180	4840	5140	7690	2840	10800
13	2330	7690	2670	7950	2390	4530	4320	4790	2660	4190
20	2950	3450	4070	6140	5870	3900	4190	7620	3350	3240
27	3390	9170	2610	4330	4460	4900	3060	3800	3700	2800
June 3	2000	3770	3330	6910	7620	3800	2460	3290	4450	3340
10	2020	3560	1560	3020	7620	3880	2620	4570	3700	3310
17	3440	2000	5230	2540	3810	4160	3700	4390	7170	4060
24	3010	2920	2730	1630	3840	2800	4700	5560	24200	2820
July 1	2260	3120	1670	2860	2030	1980	2970	3750	14000	2440
8	1540	2140	1440	2050	2860	2580	3660	3440	5520	5650
15	995	3250	1200	1930	2140	4390	2090	3150	3820	5850
22	1710	1890	1270	1580	1940	4670	2400	4190	6030	4220
29	1190	2930	937	2960	1630	3740	3000	5490	42100	7300
Aug. 5	943	4220	1340	4440	5280	2660	2470	4160	8460	6980
12	1120	6520	1650	2450	3120	2340	3260	4240	9240	4450
19	840	7110	846	1900	2330	1670	4320	6780	3700	3220
26	730	8980	618	2640	1630	2530	2620	10000	2980	18900
Sept. 2	685	4370	468	1450	3950	1870	2090	22300	2250	10500
9	570	2330	1100	2180	9560	12200	1350	14900	2570	2980
16	691	1290	678	1300	9170	5560	1720	5570	2010	2020
23	749	1000	362	1030	14300	2190	1390	2980	3330	1750
30	724	1920	557	743	3040	1970	1150	2950	2020	1630
Oct. 7	557	1080	1020	782	4040	1670	5050	10700	2000	3280
14	437	743	1740	769	6780	1510	1980	11900	1780	1890
21	634	859	19300	820	2190	1540	7300	8010	1730	1790
28	665	762	7560	1050	1700	1470	2780	31700	2070	1670
Nov. 4	1030	930	8270	950	1520	3110	1930	12100	2110	2200
11	1800	904	9300	1350	2090	3040	1980	5060	2930	3460
18	1250	937	7300	1180	1650	6650	2240	8850	2320	2030
25	1910	1020	7690	1190	1780	3990	1850	5180	8980	2930
Dec. 2	1180	1020	5900	1220	23400	3550	1840	6140	4510	2540
9	2030	1170	3220	1320	25200	2990	2610	5080	6210	2210
16	2660	1900	5830	1400	4220	5450	6780	4190	6040	2030
23	1520	1680	5990	1930	5560	5340	7430	4220	3250	2220
31	2740	3540	23600	2240	3990	2080	4410	4990	6520	4690
Maximum		15300	26200	14100	25200	20700	34600	35100	42100	21100
Minimum		743	362	743	1520	1470	1150	2950	1730	1630

Roanoke River at Roanoke Rapids, N. C.

Mean Weekly Discharge in Million Gallons per day

Week Ending	1940	1941	1942	1943	1944	1945			
Jan. 7	2980	7430	2400	12800	8460	10500			
14	2520	4230	1950	4240	3460	9170			
21	6910	7040	2480	5340	5060	7240			
28	2000	5230	3360	5760	2700	4930			
Feb. 4	2890	4440	2310	14100	2180	3610			
11	11200	3520	3350	21800	2290	3510			
18	9170	4430	3400	8930	8910	11700			
25	13200	3620	5960	5090	14700	14500			
Mar. 4	5050	3100	2730	4100	8270	8200			
11	6120	5640	8140	10300	13500	9040			
18	5590	5700	5740	5410	12600	4890			
25	4000	3650	3170	13600	13800	4220			
Apr. 1	3700	4960	3860	9040	15600	4060			
8	4720	12000	2970	5120	7950	3640			
15	10300	6460	2810	4550	13000	3100			
22	7040	3770	2200	12400	8270	6070			
29	8080	3700	1830	9170	7430	6330			
May 6	4220	2920	3060	4320	3920	4230			
13	3230	2850	2520	3790	7690	3370			
20	2680	2110	7350	4210	3480	5450			
27	4790	1760	14900	4220	4430	5450			
June 3	10700	1530	3620	5900	4370	6060			
10	5140	3420	4430	5120	2560	2540			
17	4780	2560	9630	6910	2830	2760			
24	6380	1950	3440	4940	2680	2940			
July 1	2930	2440	3300	3240	1890	1830			
8	2660	4500	4050	4410	1650	1770			
15	2860	9300	2970	11200	2510	2690			
22	4490	10300	2040	4700	4440	10700			
29	2440	5420	4110	3590	2710	6520			
Aug. 5	5130	3050	2230	2890	4010	6370			
12	2640	2440	14100	2300	2930	3090			
19	78200	1730	10600	2340	1460	2900			
26	22100	1850	10400	1430	1470	3630			
Sept. 2	7560	1640	3360	1610	1140	2110			
9	6400	3150	4260	1840	1160	1900			
16	3500	1440	4640	1650	3330	3080			
23	2640	1020	2290	1470	32900	48400			
30	2510	1000	3260	1630	6850	5610			
Oct. 7	2290	1090	3080	1270	23100	3710			
14	2240	904	3380	1210	3440	3310			
21	2150	859	11500	1340	4190	2470			
28	2190	885	7110	1490	13000	3310			
Nov. 4	2970	1140	5140	1690	3480	2530			
11	3200	1240	3100	2620	2870	2530			
18	13000	1200	2700	2160	2710	2660			
25	4530	1220	3420	1630	2920	5350			
Dec. 2	3370	1390	4450	1560	9110	5450			
9	2820	2250	5650	1630	5960	11800			
16	2730	2160	5810	1650	8460	6420			
23	3780	2340	3750	1270	4150	4150			
31	6980	2220	6850	3460	4000	17200			
Maximum	78200	12000	14900	21800	32900	48400			
Minimum	2000	859	1830	1210	1140	1770			



Roanoke River near Scotland Neck, N. C.

Location.-- Water-stage recorder, lat. 36°12'30", long. 77°23'10", at bridge on U. S. Highway 258, 1 mile downstream from tributary on right, 3 miles downstream from Bridgers Creek and 5 3/4 miles north of Scotland Neck, Halifax County. Auxiliary water-stage recorder at Atlantic Coast Line Railroad bridge, 8 1/4 miles downstream. Datum of each gage is 5.77 feet above mean sea level, datum of 1929, supplementary adjustment of 1936.

Drainage area.-- 8,700 square miles.

Records available.-- August 1940 to date.

Extremes.-- 1940-45: Maximum discharge, 168,000 million gallons per day Aug. 19, 1940; maximum gage height, 41.98 feet Aug. 19, 1940; minimum discharge, 775 million gallons per day Oct. 16, 1941.

Remarks.-- Records good. Discharge computed by using fall as determined by auxiliary gage as a factor.

Mean Monthly Discharge in Million Gallons per day

Year	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Yearly Mean
1940								28334	4419	2244	6100	3855	
1941	5917	3881	4641	6271	2264	2298	7009	2154	1620	929	1254	2189	3370
1942	2514	3940	5158	2608	7087	5120	3404	8857	3560	6576	3549	5160	4813
1943	8320	11634	9186	8101	4763	5140	6209	2089	1657	1342	2003	2019	5163
1944	4918	7623	12875	10724	5073	2675	2840	2371	10129	10872	3775	6583	6699
1945	7881	9438	6216	5057	5392	2769	5791	3903	15039	3345	3647	9457	6466
Max.	8320	11634	12875	10724	7087	5140	7009	28334	15039	10872	6100	9457	6699
Min.	2514	3881	4641	2608	2264	2298	2840	2089	1620	929	1254	2019	4813
Mean	5910	7303	7615	6552	4916	3600	5051	8118	6071	4218	3388	4877	5302

Roanoke River near Scotland Neck, N. C.

Maximum Daily Discharge in Million Gallons per day

Year	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Yearly Max.
1940								163000	11700	2710	19800	13700	
1941	12600	6270	8660	17700	3250	4440	13900	3450	3970	1230	1520	4050	17700
1942	4990	11400	15100	5060	22400	15500	6780	21800	10900	17200	7240	12700	22400
1943	20900	25000	16200	22900	9560	11800	16500	3650	2190	1620	5350	6400	25000
1944	14500	19300	19100	21000	14100	3860	5890	8200	61200	32000	13400	14400	61200
1945	16300	17600	11200	10900	12300	4720	17100	9040	74300	4940	9240	23400	74300
Max.	20900	25000	19100	22900	22400	15500	17100	163000	74300	32000	19800	23400	74300
Min.	4990	6270	8660	5060	3250	3860	5890	3450	2190	1230	1520	4050	17700
Mean	13858	15914	14052	15512	12322	8064	12034	34857	27377	9950	9425	12442	40120

Minimum Daily Discharge in Million Gallons per day

Year	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Yearly Min.
1940								2450	2450	2000	2340	2610	
1941	3600	3080	2930	3060	1410	1410	2080	1470	937	788	1110	1300	788
1942	1330	2230	2470	1710	1580	2620	1690	1600	1720	2270	2380	3260	1330
1943	3590	4390	3960	4430	3660	2740	2740	1330	1180	1190	1580	1140	1140
1944	2340	2070	6270	4860	3240	1630	1370	1100	866	2780	2790	3820	866
1945	3990	3270	3820	3170	3040	1740	1500	2140	1690	2470	2450	3950	1500
Max.	3990	4390	6270	4860	3660	2740	2740	2450	2450	2780	2790	3950	1500
Min.	1330	2070	2470	1710	1410	1410	1370	1100	866	788	1110	1140	788
Mean	2970	3008	3890	3446	2586	2028	1876	1682	1474	1916	2108	2680	1125

Roanoke River near Scotland Neck, N. C.

Mean Weekly Discharge in Million Gallons per day

Week Ending	1940	1941	1942	1943	1944	1945		
Jan. 7		8080	2330	14500	8140	10900		
14		4440	2070	4880	4460	9950		
21		6520	2280	5370	5220	7170		
28		4990	3480	6180	2970	5160		
Feb. 4		4510	2350	13800	2300	3820		
11		3640	3330	19600	2260	3700		
18		4350	3260	11500	8140	11700		
25		3840	6590	5500	15200	14100		
Mar. 4		3180	2710	4330	8660	10900		
11		5200	7240	10200	12800	9370		
18		5760	7690	6150	14100	5330		
25		3550	3260	12500	13200	4520		
Apr. 1		4900	3870	10700	14300	4270		
8		10000	3220	5540	12000	3890		
15		8400	2870	4740	11100	3280		
22		3750	2270	8910	11700	6160		
29		3550	1850	13500	7750	6850		
May 6		2990	2880	4720	4310	4630		
13		2810	2740	3930	7620	3530		
20		2130	7300	4570	3630	4710		
27		1750	14500	4500	4310	6000		
June 3		1470	5520	6150	4850	7620		
10		3230	4300	4520	2710	2660		
17		2420	9690	7360	2800	2820		
24		2030	3820	5410	2870	3010		
July 1		2070	3330	3180	1870	1870		
8		4220	4330	4530	1720	1710		
15		9500	3060	11800	2330	2730		
22		9820	2100	6070	4490	11600		
29		6180	3930	3610	2900	6360		
Aug. 5		2970	2620	3200	4310	8080		
12	2710	2530	9950	2360	3170	3410		
19	60600	1740	12600	2310	1630	3050		
26	51700	1820	12600	1250	1440	3640		
Sept. 2	7950	1650	3550	1540	1160	2710		
9	7170	2890	3890	1760	1180	1990		
16	3790	1600	5410	1720	2730	2830		
23	2900	1060	2250	1400	21100	41200		
30	2650	995	2750	1680	18200	17900		
Oct. 7	2360	1080	3520	1290	22900	3970		
14	2240	917	3170	1210	4970	3540		
21	2170	846	12000	1310	3580	2600		
28	2230	872	6520	1450	14500	3460		
Nov. 4	2630	1120	6270	1660	3990	2750		
11	3620	1200	3220	2340	3030	2730		
18	11300	1230	2780	2440	2890	2750		
25	7040	1210	3010	1660	3110	5170		
Dec. 2	3420	1390	4800	1600	9170	5860		
9	2940	2050	5420	1630	6850	11000		
16	2750	2110	6270	1670	8910	8590		
23	3720	2580	4040	1340	4650	4570		
31	5860	2250	5390	3360	4190	13400		
Maximum		10000	14500	19600	22900	41200		
Minimum		846	1850	1210	1160	1710		



Dan River near Francisco, N. C.

Location.-- Water-stage recorder, lat. 36°30'15", long. 80°20'55", at bridge on State Highway 704, just downstream from Georges Mill, 3 miles east of Francisco, Stokes County, and 7.9 miles downstream from Little Dan River.

Drainage area.-- 124 square miles.

Records available.-- August 1924 to date

Average discharge.-- 22 years, 121 million gallons per day.

Extremes.-- 1924-45: Maximum discharge, 8,010 million gallons per day Oct. 19, 1937 (gage height, 12.45 feet); minimum discharge, 4.59 million gallons per day (regulated) Sept. 8, 1932 (gage height, 0.43 foot); minimum daily, 19 million gallons per day Sept. 18, 20, 1932.

Remarks.-- Records good except those for periods of ice effect, which are poor. Considerable diurnal fluctuation and some regulation caused by Pinnacles power plant, 28 miles upstream, and two reservoirs with a total capacity of 416,000,000 cubic feet.

Mean Monthly Discharge in Million Gallons per day

Year	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Yearly Mean
1924								82.7	152	109	85.3	175	
1925	176	142	121	111	130	73.6	48.8	40.6	49.4	59.0	80.1	65.9	91.7
1926	132	121	96.9	107	71.1	56.0	49.3	45.5	52.0				
1927					82.7	65.9	103	71.7	50.6	84.6	56.0	229	
1928	117	111	119	187	147	95.0	107	450	262	160	110	94.3	163
1929	107	135	316	157	177	205	135	125	87.9	251	167	150	168
1930	134	130	167	112	84.6	73.6	37.0	33.9	32.7	35.3	51.7	74.9	80.1
1931	70.4	46.5	74.9	138	107	60.1	82.7	104	51.9	35.3	40.3	67.8	73.6
1932	113	94.3	141	149	90.4	78.2	49.5	41.4	34.2	188	209	172	114
1933	163	160	185	189	165	88.5	62.5	67.2	46.4	43.2	45.3	51.4	105
1934	57.2	44.5	146	144	77.5	96.3	95.0	74.3	136	111	141	185	109
1935	187	151	219	180	136	101	137	85.3	107	73.6	93.7	85.3	130
1936	300	199	229	281	123	84.0	67.2	73.0	64.5	107	61.2	123	143
1937	305	189	134	141	134	110	93.7	156	90.4	351	170	143	168
1938	147	121	114	87.9	94.3	157	241	180	93.0	70.4	113	91.7	126
1939	103	234	151	123	103	107	109	154	82.7	74.3	75.6	71.7	115
1940	60.8	82.0	76.2	118	102	93.0	99.5	332	141	85.3	114	96.3	117
1941	98.2	79.5	80.1	97.5	71.1	71.1	209	85.9	76.2	57.8	70.4	90.4	91.1
1942	86.6	102	107	81.4	118	201	103	193	231	134	103	158	135
1943	183	208	190	178	164	159	203	99.5	79.5	82.7	81.4	85.3	142
1944	87.2	112	168	131	111	98.2	101	73.0	84.6	90.4	88.5	89.1	103
1945	122	114	115	110	127	107	143	89.8	178	112	123	154	125
Max.	305	234	316	281	177	205	241	450	262	351	209	229	168
Min.	57.2	44.5	74.9	81.4	71.1	56.0	37.0	33.9	32.7	35.3	40.3	51.4	73.6
Mean	137	129	148	141	115	104	108	121	99.2	110	99.0	117	121

Dan River near Francisco, N. C.

Maximum Daily Discharge in Million Gallons per day

Year	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Yearly Max.
1924								169	1230	510	308	1490	
1925	337	198	221	176	320	144	69	78	186	209	304	97	337
1926	1160	221	165	209	103	134	103	100	154				
1927					132	101	446	329	218	425	71	749	
1928	174	152	196	646	365	196	218	4170	1390	174	132	142	4170
1929	218	859	975	283	578	762	242	788	176	1960	579	307	1960
1930	180	247	645	182	145	207	48	69	74	121	98	233	645
1931	291	73	333	313	299	205	228	570	135	87	45	209	570
1932	329	202	528	354	187	162	132	109	136	2260	1460	619	2260
1933	287	284	512	408	355	178	215	116	70	103	59	145	512
1934	144	103	659	333	186	219	186	211	775	557	1070	1350	1350
1935	730	253	621	261	176	174	264	162	587	387	271	164	730
1936	1430	795	641	1220	172	149	137	174	443	665	81	473	1430
1937	879	320	156	398	339	261	315	1230	146	3430	304	170	3430
1938	452	147	158	116	255	464	930	497	150	60	284	180	930
1939	340	736	244	172	166	217	545	1680	105	91	89	101	1680
1940	121	233	121	388	369	147	494	2910	320	105	260	251	2910
1941	138	112	103	258	110	130	568	142	198	123	104	185	568
1942	177	254	326	116	592	1130	187	672	1220	266	142	879	1220
1943	659	491	402	469	322	448	685	155	183	95	124	185	685
1944	270	404	453	240	279	179	188	105	553	264	149	141	553
1945	320	217	234	212	353	247	397	154	885	179	363	271	885
Max.	1430	859	975	1220	592	1130	930	4170	1390	3430	1460	1490	4170
Min.	121	73	103	116	103	101	48	69	70	80	45	97	337
Mean	432	315	385	338	276	279	314	663	424	576	300	397	1412

Minimum Daily Discharge in Million Gallons per day

Year	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Yearly Min.
1924								65	43	61	58	60	
1925	107	118	93	93	88	54	32	25	23	27	52	47	23
1926	57	74	72	76	52	36	20	23	27				
1927					62	39	37	41	31	31	47	74	
1928	91	88	91	78	98	74	81	58	99	132	98	81	58
1929	83	73	94	122	120	103	96	71	69	80	107	116	69
1930	110	102	96	92	65	50	25	21	20	23	35	35	20
1931	38	36	40	83	66	36	36	44	36	28	35	43	28
1932	57	65	59	89	65	50	34	23	19	30	104	85	19
1933	128	107	118	142	111	60	36	45	27	29	39	41	27
1934	34	32	45	78	54	56	57	47	47	69	67	102	32
1935	110	119	125	131	115	70	66	61	65	55	57	71	55
1936	84	110	125	165	87	60	43	45	39	50	50	51	39
1937	137	142	115	103	95	77	64	60	63	70	126	109	60
1938	110	109	96	61	72	96	90	104	64	51	65	74	51
1939	79	121	112	107	80	75	68	68	65	57	59	50	50
1940	42	55	61	76	65	58	58	74	94	67	71	65	42
1941	82	65	59	71	54	52	87	65	52	39	50	54	39
1942	52	68	70	66	59	99	74	74	109	101	85	71	52
1943	109	127	121	125	117	96	107	66	46	70	66	66	46
1944	61	44	98	99	81	68	63	41	25	35	70	49	25
1945	70	73	92	83	70	88	43	45	45	92	91	102	43
Max.	137	142	125	165	120	103	107	104	109	132	126	116	69
Min.	34	32	40	61	52	36	20	21	19	23	35	35	19
Mean	82.0	86.4	89.1	97.0	79.8	66.5	58.0	53.0	50.4	57.0	68.2	68.9	40.9



Dan River near Francisco, N. C.

Mean Weekly Discharge in Million Gallons per day

Week Ending	1924	1925	1926	1927	1928	1929	1930	1931	1932	1933	1934
Jan. 7		166	81		143	120	151	130	116	207	72
14		169	79		107	110	130	65	177	176	79
21		213	290		101	101	136	55	81	140	47
28		163	89		128	102	123	43	66	144	40
Feb. 4		149	149		91	85	140	38	147	127	43
11		144	109		110	133	159	43	104	163	41
18		157	95		123	76	120	52	86	168	37
25		132	120		120	90	111	52	76	178	38
Mar. 4		116	119		98	356	102	50	68	132	180
11		112	105		107	260	299	50	180	152	110
18		116	98		132	410	144	47	89	172	52
25		137	87		117	391	135	66	147	287	83
Apr. 1		123	99		138	202	120	169	202	160	275
8		103	90		105	157	133	180	136	169	96
15		116	149		236	139	116	109	238	160	183
22		103	103		169	162	107	125	118	264	191
29		116	83		242	167	96	132	99	174	114
May 6		116	75		141	253	91	83	112	205	83
13		147	79	88	140	162	87	161	101	203	67
20		176	85	72	127	154	94	75	85	154	69
27		104	56	74	200	140	72	125	75	122	81
June 3		90	71	93	116	159	72	96	67	114	103
10		76	55	74	90	180	72	61	54	94	112
17		67	45	67	87	187	86	56	101	90	73
24		64	57	65	83	153	81	48	89	83	116
July 1		83	55	47	124	320	54	45	74	76	79
8		59	55	54	128	145	42	124	51	48	83
15		50	40	130	105	172	36	61	39	45	127
22		41	33	181	105	125	37	80	59	57	77
29		46	56	64	91	103	32	78	50	88	93
Aug. 5		45	66	69	75	97	34	87	61	87	85
12		48	39	65	452	89	44	65	48	53	55
19		45	37	100	1170	197	34	70	37	84	67
26	94	31	59	70	236	126	31	178	31	65	100
Sept. 2	75	30	32	53	121	99	25	98	23	56	67
9	57	32	104	45	344	90	24	74	42	61	59
16	54	101	43	79	191	79	39	45	24	49	161
23	86	36	35	45	390	94	41	43	24	42	180
30	432	32	32	34	160	87	30	39	52	30	170
Oct. 7	185	40		76	174	468	25	33	98	41	188
14	83	39		153	174	93	27	34	48	32	118
21	74	92		70	160	83	48	31	509	56	80
28	98	70		55	143	407	36	31	136	44	76
Nov. 4	80	55		54	130	146	44	49	358	44	88
11	72	78		51	112	121	50	38	191	48	89
18	72	121		59	109	228	67	40	151	43	72
25	121	67		59	108	182	52	43	149	47	93
Dec. 2	78	59		136	101	149	43	43	115	43	545
9	387	64		479	90	146	101	57	90	47	193
16	152	62		162	83	123	52	77	126	44	125
23	94	67		94	110	175	65	88	125	72	127
31	109	76		158	91	149	87	57	344	47	109
Maximum		213			1170	468	299	180	509	287	545
Minimum		30			75	76	24	31	23	30	37

Dan River near Francisco, N. C.

Mean Weekly Discharge in Million Gallons per day

Week Ending	1935	1936	1937	1938	1939	1940	1941	1942	1943	1944	1945
Jan. 7	132	453	395	137	96	51	118	97	172	121	165
14	203	218	156	126	90	68	95	68	121	77	120
21	132	424	433	114	91	81	95	101	178	86	124
28	300	181	235	209	87	49	92	82	218	73	96
Feb. 4	141	139	264	142	216	57	83	80	235	68	86
11	136	143	193	120	315	73	77	118	306	60	89
18	186	330	162	112	266	76	87	116	202	174	119
25	137	175	202	125	138	112	75	94	154	129	149
Mar. 4	143	151	156	112	207	76	74	83	130	105	121
11	152	146	140	129	173	73	86	149	163	148	119
18	320	278	130	122	154	77	86	101	165	140	100
25	194	272	133	106	125	68	76	88	261	193	103
Apr. 1	264	267	117	98	123	87	78	99	201	228	134
8	203	464	136	71	129	101	137	83	149	127	97
15	198	303	120	86	116	110	92	89	147	151	91
22	163	204	110	102	127	154	80	78	253	133	134
29	140	179	198	91	121	115	87	76	168	114	124
May 6	148	158	142	79	104	89	73	73	140	125	103
13	142	141	124	73	99	78	78	72	186	126	94
20	127	120	177	89	94	72	67	140	158	108	153
27	143	101	115	96	108	116	67	191	175	98	151
June 3	121	87	109	147	150	162	70	103	143	100	119
10	132	94	105	114	105	102	68	200	217	102	103
17	99	96	109	146	99	101	72	370	173	94	106
24	90	77	130	211	94	83	63	145	122	108	124
July 1	74	67	87	163	87	68	83	114	131	79	90
8	140	81	95	145	85	81	283	118	146	76	87
15	138	60	74	102	167	95	148	96	348	116	106
22	129	62	122	289	90	87	320	87	216	134	133
29	160	60	83	450	103	81	129	110	138	89	214
Aug. 5	94	61	80	290	84	149	95	92	115	85	172
12	81	105	94	222	78	83	83	145	119	90	94
19	72	81	90	155	351	879	82	280	106	70	82
26	110	56	336	117	125	208	97	248	81	54	84
Sept. 2	69	57	158	114	94	318	76	156	76	67	70
9	193	52	111	108	91	176	116	421	98	41	89
16	98	65	82	95	84	130	56	205	57	43	162
23	77	47	68	84	77	108	59	138	79	102	362
30	70	101	87	76	76	109	67	191	84	156	130
Oct. 7	59	89	275	73	77	88	52	130	82	102	122
14	59	62	129	73	78	87	48	139	82	76	109
21	61	225	762	74	72	88	48	135	85	100	103
28	59	73	294	66	72	78	78	142	83	90	119
Nov. 4	128	61	193	65	75	125	75	120	82	81	103
11	74	66	151	135	75	85	74	105	94	82	101
18	124	67	190	85	72	161	67	94	78	82	105
25	74	56	134	156	81	91	68	101	77	84	129
Dec. 2	116	56	192	94	73	85	65	107	76	110	165
9	83	94	145	96	74	78	96	120	78	85	179
16	104	107	128	87	74	85	90	111	78	103	133
23	83	149	154	78	69	86	78	90	81	81	132
31	71	155	146	105	68	136	104	298	105	83	180
Maximum	320	464	762	450	351	879	320	421	348	228	362
Minimum	59	47	68	65	68	49	48	68	57	41	70

Dan River near Wentworth, N. C.

Location.— Water-stage recorder, lat.  $36^{\circ}24'45''$ , long.  $79^{\circ}49'45''$ , at Settles Bridge,  $3\frac{1}{2}$  miles northwest of Wentworth, Rockingham County, and  $7\frac{1}{2}$  miles downstream from Mayo River.

Drainage area.— 1,050 square miles.

Records available.— November 1939 to date.

Extremes.— 1939-45: Maximum discharge, 36,700 million gallons per day Sept. 18, 1945 (gage height, 27.78 feet), from rating curve extended above 10,700 million gallons per day on basis of slope-area determination at gage height 26.9 feet and runoff comparisons; minimum discharge, 96 million gallons per day (regulated) Sept. 11, 1944 (gage height, 1.32 feet); minimum daily 118 million gallons per day Sept. 11, 1944.

Remarks.— Records good. Slight diurnal fluctuation at low stage caused by power plants above station.

Mean Monthly Discharge in Million Gallons per day

Year	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Yearly Mean
1939												406	
1940	457	729	642	879	711	671	711	2238	495	340	828	621	778
1941	633	498	589	739	353	371	1413	394	435	216	264	433	529
1942	499	765	891	446	1188	1138	463	1070	804	562	426	792	754
1943	1030	1291	1248	1222	687	1068	1197	432	303	291	307	362	783
1944	589	1054	1764	1141	616	449	561	313	1092	1148	534	711	830
1945	964	1097	753	730	675	433	601	361	2504	551	724	1446	899
Max.	1030	1291	1764	1222	1188	1138	1413	2238	2504	1148	828	1446	899
Min.	457	498	589	446	353	371	463	313	303	216	264	362	529
Mean	695	906	981	860	705	688	824	801	939	518	514	682	762



Dan River near Wentworth, N. C.

Maximum Daily Discharge in Million Gallons per day

Year	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Yearly Max.
1939												1120	
1940	2560	3170	1830	3120	5740	1520	5010	26400	1280	418	3880	3180	26400
1941	982	1180	1120	3230	572	788	8790	975	1820	394	348	1080	8790
1942	1460	4810	5730	691	9560	9370	1260	5190	5160	1430	614	5170	9560
1943	4390	5410	3900	8850	1050	3900	6780	827	516	367	451	1240	8850
1944	2240	7040	5670	6230	1500	956	2590	833	12500	11600	2160	2400	12500
1945	3710	3630	1360	1930	2440	749	2290	736	28700	1350	2580	5060	28700
Max.	4390	7040	5730	8850	9560	9370	8790	26400	28700	11600	3880	5060	28700
Min.	982	1180	1120	691	572	749	1260	736	516	367	348	1080	8790
Mean	2557	4207	3268	4008	3477	2880	4453	5827	8329	2593	1672	2750	15800

Minimum Daily Discharge in Million Gallons per day

Year	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Yearly Min.
1939												297	
1940	233	271	423	465	359	333	287	333	346	316	379	379	233
1941	457	388	375	429	264	233	324	238	183	158	228	249	158
1942	271	388	402	323	284	420	258	276	348	361	355	323	258
1943	484	578	549	636	505	477	563	276	218	219	257	194	194
1944	340	301	610	621	419	283	230	180	118	306	367	494	118
1945	494	408	567	509	451	317	242	244	233	420	420	523	233
Max.	494	578	610	636	505	477	563	333	348	420	420	523	258
Min.	233	271	375	323	264	233	230	180	118	158	228	194	118
Mean	380	389	488	497	380	344	317	258	241	297	334	351	199

Dan River near Wentworth, N. C.

Mean Weekly Discharge in Million Gallons per day

Week Ending	1938	1940	1941	1942	1943	1944	1945	
Jan. 7		347	730	532	885	1010	1640	
14		432	512	362	536	415	982	
21		866	640	659	1010	642	820	
28		269	685	480	1010	386	609	
Feb. 4		277	518	461	1870	339	482	
11		630	432	711	2300	451	536	
18		620	632	1270	1120	2130	1560	
25		1280	459	603	717	1130	1630	
Mar. 4		630	425	466	589	756	872	
11		625	698	1980	1230	1430	917	
18		730	599	620	1020	1520	659	
25		470	463	469	2110	2090	625	
Apr. 1		756	704	691	956	2560	743	
8		659	1320	485	691	859	594	
15		1100	652	539	756	1890	521	
22		963	489	402	2710	1000	885	
29		827	553	351	859	859	937	
May 6		538	421	335	652	642	646	
13		449	428	388	665	769	544	
20		439	331	1470	743	600	704	
27		591	282	2810	665	539	775	
June 3		1690	380	691	643	560	632	
10		659	344	969	1650	490	476	
17		622	476	2440	1300	464	435	
24		749	260	659	685	412	448	
July 1		479	348	490	833	302	333	
8		449	930	564	924	252	400	
15		562	1110	411	2440	827	292	
22		559	3180	514	840	872	534	
29		433	762	393	769	390	885	
Aug. 5		1520	609	328	550	390	872	
12		468	350	1050	554	430	364	
19		749	342	2000	437	280	331	
26		846	446	1000	308	217	348	
Sept. 2		963	288	604	357	242	255	
9		596	1050	1540	377	169	318	
16		445	275	678	243	583	141	
23		391	216	463	306	1410	8200	
30		393	255	611	284	2450	717	
Oct. 7		330	236	446	274	2320	631	
14		349	193	501	267	433	488	
21		342	187	576	323	1370	439	
28		328	213	743	292	762	698	
Nov. 4		736	286	517	301	453	429	
11		420	273	424	340	406	420	
18		1690	242	392	297	402	497	
25		525	271	420	297	443	1090	
Dec. 2		470	259	563	298	1030	1070	
9	312	405	443	711	326	646	1840	
16	303	419	481	590	288	1070	756	
23	384	540	344	420	260	548	582	
31	620	1100	506	1330	561	552	2630	
Maximum		1690	3180	2810	2710	2560	8200	
Minimum		269	187	328	243	169	141	

Dan River at Leaksville, N. C.

Location.- Water-stage recorder, lat. 36°29'05", long. 79°45'30", at Leaksville, Rockingham County, half a mile downstream from State highway bridge and half a mile upstream from Smith River. Datum of gage is 490.33 feet above mean sea level, datum of 1929.

Drainage area.- 1,150 square miles.

Records available.- July 1929 to date.

Average discharge.- 17 years, 816 million gallons per day.

Extremes.- 1929-45: Maximum discharge, 35,000 million gallons per day Sept. 18, 1945 (gage height, 28.27 feet); minimum discharge, 54 million gallons per day (regulated) Sept. 12, 1932 (gage height, 0.25 foot); minimum daily, 74 million gallons per day (regulated) Sept. 12, 1932.

Remarks.- Records good. Slight diurnal fluctuation caused by power plant above station.

Mean Monthly Discharge in Million Gallons per day

Year	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Yearly Mean
1929										1815	1001	898	
1930	840	982	879	621	451	384	213	191	185	170	307	468	471
1931	567	340	645	1072	820	340	602	1085	358	188	217	452	561
1932	1208	717	1357	963	557	616	330	252	189	1247	1570	1647	891
1933	1021	1163	1047	982	898	444	477	423	255	205	253	307	620
1934	325	357	1550	1337	685	943	580	463	1124	655	651	1090	815
1935	1106	1054	1599	1193	715	539	603	412	686	302	570	452	770
1936	2846	1817	1636	1813	658	521	440	413	324	905	373	816	1046
1937	3215	1191	804	986	1003	804	646	1642	844	3236	1167	860	1373
1938	1023	778	747	722	554	966	1489	686	389	349	767	817	775
1939	711	2236	1468	804	598	627	722	1277	339	326	362	435	817
1940	496	789	685	974	789	719	742	2449	539	364	889	685	844
1941	690	559	640	824	370	402	1526	421	448	230	275	469	572
1942	519	800	944	463	1317	1253	484	1180	869	603	452	853	812
1943	1114	1411	1349	1317	755	1142	1302	456	327	297	320	378	844
1944	640	1108	1915	1261	689	495	570	324	1078	1308	551	753	890
1945	1052	1179	807	769	707	464	629	415	2618	556	734	1485	947
Max.	3215	2236	1915	1813	1317	1253	1526	2449	2618	3236	1570	1647	1373
Min.	325	340	640	463	370	340	213	191	185	170	217	307	471
Mean	1086	1030	1130	1006	723	666	710	756	661	750	615	757	816



Dan River at Leaksville, N. C.

Maximum Daily Discharge in Million Gallons per day

Year	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Yearly Max.
1929										11200	3730	2350	
1930	1730	3800	5040	1410	659	1100	331	711	443	384	578	2160	5040
1931	3220	446	3550	2820	2560	1070	1830	6070	2000	306	269	1880	6070
1932	7750	2330	8200	2150	930	2560	1030	1250	795	13600	5500	6590	13600
1933	2460	2430	3680	2270	3970	717	1370	1210	559	331	331	762	3970
1934	617	1760	8980	6980	3690	4900	1780	1650	6910	3700	5870	8010	8980
1935	7110	5310	8400	2820	898	930	1740	1200	5090	659	2600	1150	8400
1936	14300	9500	9880	8140	1360	1070	1050	1120	2330	7750	501	2930	14300
1937	12700	3220	975	4880	4750	2010	1430	9500	3100	19400	2970	1100	19400
1938	2580	969	1160	1730	995	4520	5940	1290	652	603	4310	3030	5940
1939	2260	6330	6330	1180	827	1180	2500	12900	504	724	620	1300	12900
1940	2890	3290	1930	3550	7110	1630	5490	24900	1570	437	4450	3570	24900
1941	969	1290	1140	4020	607	775	6720	1000	1980	473	361	1000	6720
1942	1420	4190	6030	736	9370	9370	1250	6210	5040	1740	628	5170	9370
1943	4600	5550	3550	9950	1210	4080	5700	736	628	388	484	1390	9950
1944	2670	7110	6720	5450	1940	1100	2280	749	11000	13600	2010	2470	13600
1945	4250	3560	1490	2050	2770	769	2120	904	27100	1440	2410	4840	27100
Max.	14300	9500	9880	9950	9370	9370	6720	24900	27100	19400	5870	8010	27100
Min.	617	446	975	736	607	717	331	711	443	306	269	762	3970
Mean	4470	3818	4816	3758	2728	2361	2660	4462	4356	4514	2213	2924	11890

Minimum Daily Discharge in Million Gallons per day

Year	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Yearly Min.
1929										349	617	636	
1930	636	617	559	501	320	233	120	112	81	111	193	187	81
1931	298	278	288	474	384	202	174	295	118	156	199	151	118
1932	398	388	366	497	370	281	193	121	74	160	617	501	74
1933	659	659	659	659	501	271	239	249	146	140	216	236	140
1934	129	169	341	520	345	313	271	205	220	366	355	491	129
1935	568	598	698	698	578	370	349	252	278	236	352	288	236
1936	409	646	736	801	466	370	281	249	199	327	320	352	199
1937	930	749	646	585	585	472	378	393	390	466	743	698	378
1938	775	711	607	504	416	479	420	371	285	288	329	458	285
1939	517	782	736	634	470	377	353	324	278	273	302	310	273
1940	245	284	470	517	364	352	288	352	364	337	408	424	245
1941	517	420	422	464	271	250	326	257	210	177	244	254	177
1942	288	419	406	353	300	460	274	274	357	357	386	337	274
1943	517	628	587	672	565	486	628	300	240	247	284	194	194
1944	357	318	691	685	452	317	256	207	140	349	398	510	140
1945	549	472	598	539	452	346	259	249	234	431	431	549	234
Max.	930	782	736	801	585	486	628	393	390	466	743	698	378
Min.	129	169	288	353	271	202	120	112	74	111	193	151	74
Mean	487	509	551	569	427	349	301	263	226	281	376	387	199

Dan River at Leaksville, N. C.

Mean Weekly Discharge in Million Gallons per day

Week Ending	1929	1930	1931	1932	1933	1934	1935	1936	1937	1938
Jan. 7		859	1060	1120	1340	368	649	4460	5930	982
14		691	537	2810	1200	435	820	1880	1160	1010
21		1090	432	556	762	295	730	4880	4520	808
28		788	344	429	872	256	2400	1090	1510	1330
Feb. 4		1010	304	1150	736	261	698	724	2210	885
11		1480	310	769	1180	244	678	1250	1100	736
18		795	351	691	1420	252	1870	3970	904	711
25		665	393	532	1310	254	840	1340	1270	859
Mar. 4		611	368	424	749	1520	898	898	956	717
11		1560	362	2820	820	1300	833	808	846	859
18		749	323	641	788	427	2670	267	788	801
25		711	694	891	1930	943	1030	1690	782	691
Apr. 1		607	1480	1740	808	2550	2460	1740	691	643
8		762	1950	872	801	814	1570	3240	808	717
15		638	739	1580	1120	2290	1270	2330	704	943
22		584	592	717	1290	1500	969	1020	613	691
29		520	1020	595	795	659	827	891	1850	574
May 6		495	464	592	1250	481	717	769	879	496
13		455	1090	665	1060	386	704	795	736	445
20		495	555	578	788	1030	736	643	1390	557
27		393	1340	426	590	711	762	551	665	616
June 3		391	596	421	610	904	598	475	743	678
10		386	351	320	447	2180	659	481	808	652
17		375	282	1300	438	598	586	526	840	685
24		501	268	533	346	532	497	639	950	1190
July 1		259	227	394	512	376	375	443	626	1450
8		205	652	372	314	452	487	452	556	1070
15		177	328	244	512	827	556	439	672	508
22		243	552	426	434	377	646	498	589	1370
29		208	1030	291	596	644	788	370	652	2760
Aug. 5		183	1390	331	570	541	420	395	698	1010
12		327	638	432	345	284	396	629	1070	943
19		157	556	185	570	313	322	451	743	634
26		159	1830	163	368	704	756	276	3370	429
Sept. 2		114	559	126	297	503	302	276	2090	474
9		132	361	220	365	592	1580	239	1890	410
16		208	209	103	266	1230	614	340	639	398
23		266	190	114	212	1900	347	229	472	371
30		160	680	334	158	995	318	518	665	336
Oct. 7	4890	128	193	329	200	1200	268	1150	4130	382
14	704	129	175	264	171	724	270	424	1160	320
21	548	209	178	4010	231	438	282	1840	5480	309
28	1580	183	176	678	213	387	286	432	2890	388
Nov. 4	730	234	234	1980	228	377	445	373	1290	337
11	730	296	209	1800	286	459	442	381	879	609
18	1400	395	225	775	235	372	998	408	1610	388
25	1150	323	218	1710	254	489	407	349	820	1550
Dec. 2	820	256	220	891	248	3200	531	349	1380	698
9	1120	698	288	561	282	1020	409	556	891	1010
16	672	344	432	1070	266	585	620	827	756	711
23	872	316	691	872	404	665	422	1230	801	492
31	956	548	457	4020	297	537	351	782	924	1100
Maximum		1560	1950	4020	1930	3200	2670	4880	5930	2760
Minimum		114	175	103	158	244	268	229	472	309



Dan River at Leaksville, N. C.

Mean Weekly Discharge in Million Gallons per day

Week Ending	1939	1940	1941	1942	1943	1944	1945	
Jan. 7	646	379	783	560	995	1110	1780	
14	618	433	581	396	581	452	1090	
21	717	982	698	672	1100	711	885	
28	603	291	724	490	1070	406	665	
Feb. 4	1530	295	573	487	2000	357	548	
11	2910	678	481	749	2510	432	575	
18	2690	659	736	1290	1260	2060	1630	
25	982	1410	500	652	775	1410	1760	
Mar. 4	3170	646	468	481	646	833	950	
11	1280	672	736	2130	1370	1600	1020	
18	1830	782	665	672	1060	1680	704	
25	904	519	526	481	2270	2210	665	
Apr. 1	840	820	743	704	1040	2780	775	
8	975	698	1560	496	743	988	625	
15	711	1250	698	547	801	1970	552	
22	769	1070	518	426	2930	1140	937	
29	749	911	583	375	937	975	982	
May 6	724	589	444	348	691	717	672	
13	589	483	443	406	730	917	555	
20	528	408	349	1660	817	659	698	
27	590	685	295	3100	736	579	840	
June 3	724	1890	403	795	724	622	698	
10	636	672	378	1010	1690	540	506	
17	795	691	517	2770	1430	518	465	
24	514	782	289	711	743	434	478	
July 1	464	512	359	519	937	335	364	
8	478	474	1230	615	1000	275	413	
15	1020	586	1160	428	2710	795	300	
22	626	605	3220	508	859	891	598	
29	698	436	853	410	820	390	911	
Aug. 5	590	1610	672	353	579	417	956	
12	475	499	373	969	579	441	419	
19	3100	8080	360	2420	475	289	377	
26	1270	982	477	1130	330	230	395	
Sept. 2	616	1170	307	625	370	260	267	
9	410	652	1030	1690	413	187	348	
16	321	486	287	730	270	610	1310	
23	298	412	237	472	324	1600	8790	
30	290	406	284	678	300	2150	736	
Oct. 7	409	359	252	452	278	2780	610	
14	320	375	208	538	267	489	516	
21	295	368	202	623	330	1440	463	
28	288	351	214	833	299	872	672	
Nov. 4	339	762	307	534	313	477	462	
11	339	445	284	452	357	440	442	
18	313	1820	254	417	308	430	490	
25	448	570	286	448	307	458	1060	
Dec. 2	343	516	268	602	317	1040	1120	
9	332	444	475	775	335	678	1930	
16	322	458	505	646	299	1130	769	
23	401	578	388	457	267	590	614	
31	678	1240	556	1410	596	525	2650	
Maximum	3170	8080	3220	3100	2930	2780	8790	
Minimum	288	291	202	348	267	187	267	



Mayo River near Price, N. C.

Location.- Water-stage recorder, lat. 36°32'00", long. 79°59'30", just downstream from Anglins Bridge, half a mile downstream from confluence of North and South Mayo Rivers, three-quarters of a mile downstream from Virginia-North Carolina State line and 4 miles west of Price, Rockingham County.

Drainage area.- 260 square miles.

Records available.- July 1929 to date.

Average discharge.- 17 years, 205 million gallons per day.

Extremes.- 1929-45: Maximum discharge, 19,400 million gallons per day Oct. 19, 1937 (gage height, 14.00 feet), from rating curve extended above 5,200 million gallons per day; minimum discharge, 26 million gallons per day (regulated) Sept. 19, 1932 (gage height, 0.52 foot); minimum daily, 28 million gallons per day (regulated) Sept. 19, 1932.

Remarks.- Records good except those for periods of ice effect or no gage-height record, which are poor. Some diurnal fluctuation at low flow caused by mills above station.

Mean Monthly Discharge in Million Gallons per day

Year	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Yearly Mean
1929								198	152	532	276	246	
1930	223	249	236	185	133	120	67.2	58.1	53.8	57.7	87.2	128	132
1931	134	89.8	167	232	155	91.7	134	231	76.9	54.6	62.0	106	128
1932	219	146	336	253	128	133	84.0	81.4	48.4	369	366	313	207
1933	239	253	299	286	283	138	154	149	87.2	76.9	84.0	92.4	178
1934	98.2	90.4	324	279	136	203	156	87.2	271	192	206	262	193
1935	311	257	357	295	226	176	200	142	189	106	139	134	211
1936	660	375	384	443	197	136	118	135	107	237	105	214	259
1937	652	297	215	255	237	210	174	353	196	808	337	259	334
1938	258	210	203	202	158	264	367	192	127	103	169	180	203
1939	167	491	309	207	147	163	156	318	95.0	85.9	96.9	113	194
1940	121	174	143	243	231	162	234	609	160	116	197	183	215
1941	169	138	143	211	109	114	355	120	113	73.0	91.7	141	149
1942	159	200	229	134	357	344	144	371	255	166	141	225	227
1943	251	340	311	339	216	422	322	148	118	103	109	118	232
1944	158	234	370	242	169	120	118	85.3	257	255	139	165	193
1945	219	224	186	202	182	123	169	120	647	182	200	331	231
Max.	660	491	384	443	357	422	367	609	647	808	366	331	334
Min.	98.2	89.8	143	134	109	91.7	67.2	58.1	48.4	54.6	84.0	92.4	128
Mean	252	236	263	250	192	182	185	200	174	207	165	189	205

Mayo River near Price, N. C.

Maximum Daily Discharge in Million Gallons per day

Year	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Yearly Max.
1929									358	7040	795	376	
1930	275	704	898	300	187	367	89	124	110	96	147	355	898
1931	466	113	879	521	459	344	461	1510	151	83	70	461	1510
1932	853	329	2260	775	189	291	236	367	144	5680	1910	1260	5680
1933	435	543	1030	568	1020	362	455	461	166	118	115	224	1030
1934	178	181	1700	956	502	788	724	175	2270	879	1400	1670	2270
1935	1560	608	1280	477	315	391	514	388	1160	273	439	287	1560
1936	4810	1920	1520	2140	264	194	220	385	808	2130	134	904	4810
1937	3600	604	260	1050	769	501	373	2170	394	5680	717	334	5680
1938	540	274	331	362	235	963	1540	354	187	141	730	685	1540
1939	452	2340	904	322	173	382	405	3590	147	121	145	281	3590
1940	465	801	280	1020	1570	367	2290	6010	300	146	603	950	6010
1941	251	251	225	1060	189	262	1260	214	394	142	127	311	1260
1942	412	808	1060	196	2730	2310	451	2890	1620	376	198	1180	2890
1943	711	1090	1050	2020	256	2400	1890	260	242	121	174	314	2400
1944	717	1160	1100	672	334	187	347	200	2870	1500	372	343	2870
1945	665	548	342	479	452	190	1040	317	7360	366	599	975	7360
Max.	4810	2340	2260	2140	2730	2400	2290	6010	7360	7040	1910	1670	7360
Min.	178	113	225	196	173	187	89	124	110	83	70	224	898
Mean	1024	767	945	807	603	644	768	1142	1099	1464	510	642	3210

Minimum Daily Discharge in Million Gallons per day

Year	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Yearly Min.
1929								149	124	166	203	194	
1930	198	176	171	151	107	83	54	37	33	40	66	71	33
1931	83	79	84	125	96	50	66	79	52	45	56	58	45
1932	92	99	96	138	89	72	54	37	28	39	155	129	28
1933	172	158	181	209	147	88	81	97	58	64	76	78	58
1934	58	67	89	134	93	96	81	63	58	109	108	152	58
1935	174	184	206	217	182	125	120	84	97	94	103	110	84
1936	116	168	196	244	150	97	88	81	70	109	96	96	70
1937	222	216	182	165	160	125	115	105	123	140	232	220	105
1938	198	190	176	150	129	138	132	123	103	94	102	116	94
1939	125	198	204	165	125	105	89	88	79	76	84	84	76
1940	78	84	110	115	102	95	79	120	123	107	118	113	78
1941	139	121	111	133	81	76	92	85	69	64	79	86	64
1942	103	124	136	114	96	143	95	98	129	130	127	103	95
1943	152	201	179	203	169	159	187	115	94	93	101	84	84
1944	105	100	166	163	121	89	76	59	48	107	111	133	48
1945	143	127	147	141	130	84	70	80	80	140	132	186	70
Max.	222	216	206	244	182	159	187	149	129	166	232	220	105
Min.	58	67	84	114	81	50	54	37	28	39	56	58	28
Mean	135	143	152	160	124	102	92.4	88.2	80.5	95.1	115	118	68.1

Mayo River near Price, N. C.

Mean Weekly Discharge in Million Gallons per day

Week Ending	1929	1930	1931	1932	1933	1934	1935	1936	1937	1938
Jan. 7		238	231	284	300	111	214	1050	1160	269
14		210	126	375	262	120	294	373	282	242
21		238	107	122	194	89	204	1140	846	207
28		213	90	101	220	81	571	288	357	317
Feb. 4		293	82	217	181	92	205	204	475	235
11		311	87	167	266	81	214	236	282	204
18		213	91	137	269	77	350	743	242	195
25		191	97	115	289	81	229	307	325	226
Mar. 4		177	103	117	199	532	246	236	255	196
11		365	103	625	240	214	229	222	232	230
18		218	94	170	240	105	533	601	213	218
25		205	192	217	539	211	304	383	205	190
Apr. 1		182	359	456	226	480	446	413	184	178
8		216	342	214	237	178	331	749	214	211
15		191	180	449	237	434	320	502	192	233
22		177	187	187	357	364	266	304	175	206
29		162	192	155	273	158	232	261	448	168
May 6		149	124	147	404	125	248	241	242	148
13		132	172	141	350	106	233	216	202	136
20		143	110	120	256	130	213	194	352	166
27		118	239	111	186	165	243	169	187	169
June 3		116	145	103	155	187	200	148	196	171
10		120	98	76	129	350	216	143	196	178
17		122	82	211	127	144	180	153	244	213
24		149	73	154	132	193	160	129	253	369
July 1		88	66	105	165	113	129	110	136	327
8		72	214	88	99	110	168	140	154	275
15		66	89	64	152	281	187	103	192	166
22	298	72	91	91	145	111	222	104	194	528
29	208	59	158	94	211	136	243	116	171	549
Aug. 5	209	56	329	87	191	98	136	118	127	269
12	205	76	127	158	109	81	121	191	245	244
19	224	57	128	59	207	82	103	172	148	185
26	177	56	373	50	127	99	238	98	711	140
Sept. 2	161	39	123	37	107	78	104	87	476	140
9	151	43	98	58	112	92	387	85	245	138
16	137	59	67	35	91	405	174	91	166	132
23	179	68	68	36	76	367	114	78	134	121
30	141	51	72	68	65	280	105	183	193	109
Oct. 7	1480	47	54	79	77	342	98	221	963	105
14	209	50	52	58	66	204	98	129	255	97
21	172	65	51	1290	87	136	96	520	1530	97
28	391	61	51	151	78	120	97	133	641	114
Nov. 4	254	76	69	479	80	134	140	110	364	103
11	228	83	59	399	92	134	112	109	273	152
18	333	105	61	194	82	111	192	111	424	109
25	299	87	65	402	83	158	114	99	246	291
Dec. 2	249	78	61	196	80	724	158	99	406	152
9	258	167	77	141	85	262	119	138	272	213
16	204	90	103	211	80	171	176	190	233	152
23	250	113	154	207	117	207	132	288	240	123
31	263	153	104	682	89	165	111	266	277	238
Maximum		365	373	1290	539	724	571	1140	1530	549
Minimum		.39	51	35	65	77	96	78	127	97



Mayo River near Price, N. C.

Mean Weekly Discharge in Million Gallons per day

Week Ending	1939	1940	1941	1942	1943	1944	1945	
Jan. 7	145	110	192	167	231	275	329	
14	149	130	152	122	169	123	207	
21	169	179	163	220	230	143	214	
28	141	80	178	140	279	112	158	
Feb. 4	312	88	147	140	412	105	137	
11	736	151	129	211	548	127	133	
18	528	143	163	263	291	431	281	
25	248	300	128	180	224	245	313	
Mar. 4	565	152	120	149	196	188	207	
11	342	145	160	396	287	340	208	
18	306	152	155	203	256	319	162	
25	233	118	130	162	478	408	159	
Apr. 1	232	142	142	189	285	516	205	
8	240	195	354	143	224	238	165	
15	201	257	191	151	227	300	145	
22	202	313	148	127	644	238	249	
29	185	230	171	117	287	185	252	
May 6	167	151	128	113	232	175	176	
13	153	122	130	115	220	203	149	
20	140	108	106	578	207	167	191	
27	141	218	91	685	212	149	203	
June 3	203	567	132	236	195	131	171	
10	165	171	103	380	83	128	134	
17	160	175	123	627	401	130	121	
24	134	132	89	199	265	122	129	
July 1	129	109	103	160	287	92	94	
8	115	131	327	195	227	83	87	
15	158	171	329	134	571	177	90	
22	146	123	599	108	296	136	123	
29	211	100	224	139	228	89	238	
Aug. 5	130	614	189	113	178	93	330	
12	103	168	112	353	171	111	122	
19	885	1870	102	717	154	78	100	
26	228	288	135	349	119	67	117	
Sept. 2	140	337	95	196	125	72	84	
9	114	188	211	484	149	54	116	
16	92	153	89	208	105	107	435	
23	85	134	78	162	114	356	1930	
30	81	132	81	190	103	565	267	
Oct. 7	95	115	74	150	96	240	213	
14	86	118	67	178	96	125	162	
21	82	119	67	168	109	494	149	
28	81	111	78	177	106	211	216	
Nov. 4	90	203	95	160	111	134	147	
11	91	125	94	141	121	120	137	
18	86	324	84	132	105	117	151	
25	116	144	96	140	103	128	273	
Dec. 2	94	136	88	162	102	206	275	
9	89	120	142	191	103	160	457	
16	87	125	153	174	96	214	242	
23	115	141	109	136	97	143	209	
31	162	340	169	377	171	143	434	
Maximum	885	1870	599	717	644	565	1930	
Minimum	81	80	67	108	83	54	84	

Smith River at Spray, N. C.

Location.- Water-stage recorder, lat. 36°31'47", long. 79°46'08", 0.9 mile south of Virginia-North Carolina State line, 1 mile downstream from Stuart Creek, and 1 mile north of Spray, Rockingham County. Datum of gage is 539.56 feet above mean sea level, datum of 1929, supplementary adjustment of 1936.

Drainage area.- 538 square miles.

Records available.- October 1939 to date.

Extremes.- 1939-45: Maximum discharge, 29,500 million gallons per day Aug. 15, 1940 (gage height, 19.28 feet), by computation of flow over dam; minimum discharge, 41 million gallons per day (regulated) Jan. 12, 1942 (gage height, 1.38 feet); minimum daily, 43 million gallons per day (regulated) Sept. 10, 1944.

Remarks.- Records good except those for period of ice effect, which are poor.  
Diurnal fluctuation and some regulation caused by power plant above station.

Mean Monthly Discharge in Million Gallons per day

Year	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Yearly Mean
1939											182	217	
1940	240	404	277	528	501	391	418	1572	361	249	453	423	486
1941	380	290	315	486	210	213	776	191	154	108	131	269	294
1942	266	339	412	218	649	568	235	438	431	325	257	491	386
1943	444	683	621	699	490	539	729	253	202	167	183	209	433
1944	318	485	815	460	372	221	178	130	546	526	271	362	390
1945	486	475	323	355	358	240	231	171	1149	322	398	702	433
Max.	486	683	815	699	649	568	776	1572	1149	526	453	702	486
Min.	240	290	277	218	210	213	178	130	154	108	131	209	294
Mean	356	446	460	458	430	362	428	459	474	283	268	382	404

Smith River at Spray, N. C.

Maximum Daily Discharge in Million Gallons per day

Year	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Yearly Max.
1939											275	516	
1940	1180	1740	504	2090	4410	937	3190	15100	956	353	1690	2340	15100
1941	583	593	652	3200	378	437	3760	437	398	181	203	749	3760
1942	756	1230	2580	324	4200	4810	1070	1510	2840	943	386	3710	4810
1943	1400	2270	1540	4150	1490	1980	4880	562	388	261	385	937	4880
1944	1520	2740	2400	1270	1340	385	364	302	5520	4220	632	917	5520
1945	1420	1270	554	1210	1070	398	775	267	14700	711	1250	2090	14700
Max.	1520	2740	2580	4150	4410	4810	4880	15100	14700	4220	1690	3710	15100
Min.	583	593	504	324	378	385	364	267	388	181	203	516	3760
Mean	1143	1640	1372	2041	2148	1491	2340	3030	4134	1112	689	1608	8128

Minimum Daily Discharge in Million Gallons per day

Year	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Yearly Min.
1939											140	143	
1940	142	168	189	203	187	178	155	215	251	200	227	229	142
1941	276	222	187	253	143	141	196	132	82	67	105	109	67
1942	142	193	196	149	140	234	124	112	183	198	196	194	112
1943	253	304	295	338	339	226	264	186	149	147	154	123	123
1944	182	173	337	291	231	151	116	78	43	199	204	261	43
1945	260	191	224	217	238	143	110	121	120	216	212	309	110
Max.	276	304	337	338	339	234	264	215	251	216	227	309	142
Min.	142	168	187	149	140	141	110	78	43	67	105	109	43
Mean	209	203	238	242	213	179	161	141	138	171	177	195	99.5



Smith River at Spray, N. C.

Mean Weekly Discharge in Million Gallons per day

Week Ending	1939	1940	1941	1942	1943	1944	1945	
Jan. 7		202	435	322	455	632	756	
14		213	317	187	298	235	472	
21		410	389	357	348	271	501	
28		164	394	222	452	194	306	
Feb. 4		179	317	233	891	182	245	
11		321	260	401	1110	226	258	
18		311	362	425	612	911	652	
25		730	259	291	389	549	635	
Mar. 4		340	247	220	325	417	379	
11		294	355	833	611	749	385	
18		301	388	340	495	704	265	
25		207	269	251	937	879	264	
Apr. 1		306	300	311	589	1120	353	
8		344	995	227	391	445	263	
15		672	366	257	399	572	229	
22		652	282	205	1560	455	479	
29		488	345	185	517	360	468	
May 6		278	247	174	397	439	302	
13		228	268	197	455	479	260	
20		208	198	937	412	278	436	
27		548	163	1430	672	322	406	
June 3		1300	207	361	457	269	344	
10		373	210	461	672	223	258	
17		529	238	1250	608	280	253	
24		287	170	301	374	206	243	
July 1		213	220	259	555	162	175	
8		264	1200	397	291	138	183	
15		326	599	212	2000	224	151	
22		375	1110	156	415	233	282	
29		216	379	196	366	136	266	
Aug. 5		885	306	153	273	138	267	
12		297	185	387	288	173	171	
19		5120	165	704	303	116	166	
26		560	194	570	197	105	175	
Sept. 2		969	147	236	221	114	132	
9		423	256	717	256	86	218	
16		315	130	326	176	183	460	
23		286	114	269	200	917	3680	
30		298	125	437	172	1120	526	
Oct. 7		249	110	256	154	580	386	
14		256	97	326	154	249	298	
21		267	98	382	176	930	263	
28		233	111	357	167	462	368	
Nov. 4		457	137	284	191	251	256	
11	171	266	138	251	229	235	250	
18	156	788	120	229	176	227	278	
25	227	309	140	269	165	263	560	
Dec. 2	172	294	124	314	159	415	589	
9	167	249	257	397	163	369	956	
16	165	262	293	342	152	497	441	
23	228	326	179	245	155	282	485	
31	309	840	376	930	360	297	969	
Maximum		5120	1200	1430	2000	1120	3680	
Minimum		164	97	153	152	86	132	

Tar River near Tar River, N. C.

Location.- Water-stage recorder and concrete control, lat.  $36^{\circ}12'$ , long.  $78^{\circ}34'$ , at bridge on State Highway 96,  $1\frac{1}{4}$  miles upstream from Fishing Creek,  $2\frac{1}{2}$  miles east of town of Tar River, Granville County, and 8 miles south of Oxford.

Drainage area.- 161 square miles.

Records available.- November 1939 to date.

Extremes.- 1939-45: Maximum discharge, 6,850 million gallons per day Sept. 18, 1945 (gage height, 16.51 feet); minimum discharge, .129 million gallons per day Nov. 9-22, 1941.

Remarks.- Records good except those for period of no gage-height record, which are poor. City of Oxford diverts about 0.323 million gallons per day for water supply.

Mean Monthly Discharge in Million Gallons per day

Year	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Yearly Mean
1939											19.6	37.0	
1940	59.6	245	115	193	140	84.0	13.4	108	14.9	3.08	169	63.2	99.5
1941	82.7	44.2	121	101	10.9	14.7	73.0	8.08	6.59	.368	.181	2.84	38.8
1942	4.55	70.4	114	21.4	72.4	16.9	73.6	134	50.2	181	95.6	191	85.9
1943	196	189	201	136	36.3	61.3	21.8	1.49	2.91	.459	.685	4.30	70.1
1944	93.7	216	307	242	69.8	10.6	29.4	66.5	241	161	129	136	141
1945	155	312	96.3	89.1	61.4	28.7	307	119	433	31.3	28.2	287	161
Max.	196	312	307	242	140	84.0	307	134	433	181	169	287	161
Min.	4.55	44.2	96.3	21.4	10.9	10.6	13.4	1.49	2.91	.368	.181	2.84	38.8
Mean	98.6	179	159	130	65.1	36.0	86.4	72.8	125	62.9	63.2	103	99.4

Tar River near Tar River, N. C.

Maximum Daily Discharge in Million Gallons per day

Year	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Yearly Max.
1939											57	285	
1940	448	1360	840	2260	2450	1140	48	1100	69	4.65	2200	284	2450
1941	405	165	685	736	26	148	584	26	37	.90	.26	6.5	736
1942	13	1020	1150	50	672	59	659	788	458	1340	1290	1260	1340
1943	969	1320	1410	1390	129	284	166	5.2	6.5	1.23	3.49	27	1410
1944	704	1360	1290	2190	441	64	488	659	4040	2220	1720	904	4040
1945	586	1670	438	691	466	147	2050	1030	6100	112	63	1980	6100
Max.	969	1670	1410	2260	2450	1140	2050	1100	6100	2220	2200	1980	6100
Min.	13	165	438	50	26	59	48	5.2	6.5	.90	.26	6.5	736
Mean	521	1149	969	1220	697	307	666	601	1785	613	762	678	2679

Minimum Daily Discharge in Million Gallons per day

Year	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Yearly Min.
1939											7.8	9.7	
1940	23	31	45	32	20	16	4.46	4.52	3.68	1.62	5.2	19	1.62
1941	34	27	28	25	3.49	3.68	8.4	2.20	.84	.19	.13	.26	.13
1942	2.13	4.91	12	7.1	7.8	4.65	7.1	4.07	4.46	5.5	12	39	2.13
1943	44	41	37	43	16	5.2	2.26	.65	.65	.26	.32	.52	.26
1944	8.4	10	48	48	13	3.68	2.84	4.26	1.55	21	19	42	1.55
1945	43	36	36	19	19	9.0	7.1	15	12	17	17	23	7.1
Max.	44	41	48	48	20	16	8.4	15	12	21	19	42	7.1
Min.	2.13	4.91	12	7.1	3.49	3.68	2.26	.65	.65	.19	.13	.26	.13
Mean	25.8	25.0	34.3	29.0	13.2	7.04	5.36	5.12	3.86	7.60	8.78	19.1	2.13



Tar River near Tar River, N. C.

Mean Weekly Discharge in Million Gallons per day

Week Ending	1939	1940	1941	1942	1943	1944	1945	
Jan. 7		32	100	3.08	105	147	240	
14		62	41	2.50	66	21	214	
21		126	143	4.13	275	214	145	
28		31	63	8.4	236	25	67	
Feb. 4		34	40	5.4	267	15	41	
11		517	39	17	488	79	48	
18		135	72	211	109	525	636	
25		291	34	43	59	215	483	
Mar. 4		115	29	54	41	98	156	
11		91	234	286	354	254	177	
18		222	54	47	90	326	63	
25		60	50	47	169	434	56	
Apr. 1		67	202	85	267	325	39	
8		44	271	27	56	83	28	
15		188	61	32	77	581	25	
22		463	32	16	358	183	154	
29		114	45	9.7	70	155	163	
May 6		43	21	59	36	55	43	
13		34	14	26	37	90	28	
20		34	9.0	183	23	19	63	
27		459	6.3	47	39	132	91	
June 3		85	11	14	36	25	64	
10		25	12	17	43	9.7	17	
17		48	12	28	152	19	42	
24		237	5.6	11	50	6.5	45	
July 1		22	32	10	14	6.5	10	
8		13	25	89	30	7.1	37	
15		21	100	19	52	74	52	
22		16	17	122	8.4	30	1000	
29		6.5	147	91	3.49	11	240	
Aug. 5		9.0	38	9.0	1.83	169	288	
12		9.0	9.0	222	1.47	114	99	
19		354	5.5	244	1.06	8.4	90	
26		70	7.8	62	.65	5.6	59	
Sept. 2		45	2.82	68	2.95	4.91	19	
9		20	22	138	2.40	2.35	23	
16		24	4.1	25	3.29	90	198	
23		8.4	1.10	7.1	4.07	306	1580	
30		5.3	.98	36	2.13	634	47	
Oct. 7		3.36	.71	10	.49	404	48	
14		3.19	.35	162	.41	37	35	
21		2.30	.25	475	.28	185	23	
28		3.17	.21	127	.63	72	25	
Nov. 4		16	.26	49	.47	27	21	
11		8.4	.17	27	1.33	22	25	
18	10	638	.13	19	.56	24	26	
25	32	37	.17	269	.43	25	37	
Dec. 2	18	35	.26	94	.54	562	27	
9	15	23	2.45	248	.68	223	236	
16	13	34	2.55	127	.61	162	70	
23	15	55	2.69	94	.54	56	75	
31	103	140	4.20	311	15	61	769	
Maximum		638	271	475	488	634	1580	
Minimum		2.30	.13	2.50	.28	2.35	10	

Tar River near Nashville, N. C.

Location.— Water-stage recorder, lat. 35°51'00", long. 77°55'50", at Cockrell Bridge on Nashville-Wilson road 5 miles upstream from Sapony Creek and 10 miles south of Nashville, Nash County. Datum of gage is 110.96 feet above mean sea level, datum of 1929, supplementary adjustment of 1936.

Drainage area.— 701 square miles.

Records available.— October 1928 to date.

Average discharge.— 18 years, 503 million gallons per day.

Extremes.— 1928- 45: Maximum discharge, 10,900 million gallons per day Dec. 3, 1934 (gage height, 20.8 feet); minimum observed, 6.5 million gallons per day Sept. 20, 1932 (gage height, 1.50 feet).

Remarks.— Records good except those for period of no gage-height record, which are poor. Considerable diurnal fluctuation and some regulation at low flow caused by power plants above station.

Mean Monthly Discharge in Million Gallons per day

Year	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Yearly Mean
1928										295	205	196	
1929	250	678	1860	546	526	556	685	578	217	2041	885	598	788
1930	594	665	376	428	200	436	207	53.1	114	53.1	98.2	240	286
1931	315	202	333	685	749	209	354	956	154	76.9	73.0	209	361
1932	672	497	904	391	176	127	47.7	56.9	15.7	183	333	808	351
1933	704	691	361	853	388	130	81.4	143	59.2	18.6	50.5	59.6	293
1934	74.3	221	782	1240	306	453	308	524	508	118	290	1379	519
1935	795	498	806	1244	373	125	454	120	536	133	401	377	487
1936	2021	1643	1153	1508	217	400	348	333	160	292	238	830	759
1937	1771	1018	642	1297	407	295	322	1190	647	365	342	307	715
1938	607	337	494	466	278	1286	1249	256	233	135	257	412	501
1939	473	1663	1125	681	615	239	616	1209	512	229	213	253	647
1940	365	826	526	742	590	342	174	1285	162	94.3	472	297	488
1941	370	279	505	537	129	121	537	144	86.6	48.6	62.9	167	249
1942	134	413	519	228	353	175	256	466	320	808	356	621	388
1943	980	771	800	599	245	281	233	44.5	44.2	43.9	79.5	122	351
1944	541	869	1236	992	438	175	415	412	424	1154	392	813	656
1945	607	1102	563	359	386	176	1218	620	2040	259	238	999	711
Max.	2021	1663	1860	1508	749	1286	1249	1285	2040	2041	885	1379	788
Min.	74.3	202	333	228	129	121	47.7	44.5	15.7	18.6	50.5	59.6	249
Mean	663	728	764	753	375	325	441	494	367	353	277	483	503

Tar River near Nashville, N. C.

Maximum Daily Discharge in Million Gallons per day

Year	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Yearly Max.
1928												259	
1929	459	2670	5740	1930	1620	2200	2120	1350	724	8270	2730	1620	8270
1930	1690	2040	808	1620	891	1930	1470	156	866	118	209	930	2040
1931	633	306	1020	2680	2950	808	2290	3040	891	143	92	401	3040
1932	3130	1190	4510	995	401	488	220	332	27	1430	1090	2130	4510
1933	1890	1540	659	2590	1580	268	175	891	164	32	84	84	2590
1934	115	166	2280	5960	1390	1100	1200	2490	1620	258	3600	10100	10100
1935	1970	1200	2320	2990	1290	187	1970	226	2760	276	1320	1850	2990
1936	5140	5350	3820	5650	321	1440	1540	1580	769	1070	801	2950	5650
1937	3800	3380	1340	4500	1250	840	2080	6100	2640	840	904	452	6100
1938	2130	623	1490	1570	814	4570	5710	1100	1520	196	1190	1250	5710
1939	975	4320	2830	2130	2780	407	1650	6250	5850	1210	435	1010	6250
1940	1230	2300	1700	2470	2600	1190	704	7430	313	116	2450	627	7430
1941	930	499	1740	2220	222	249	1410	672	307	225	83	483	2220
1942	211	2130	1980	496	1010	421	808	1650	2030	3530	1540	1250	3530
1943	2810	2330	2300	2210	364	924	1100	104	150	127	231	486	2810
1944	1920	2650	2920	3110	2110	465	3420	2380	2290	5780	2980	3540	5780
1945	1690	2780	1530	930	2000	298	4970	2450	9950	438	334	2970	9950
Max.	5140	5350	5740	5960	2950	4570	5710	7430	9950	8270	3600	10100	10100
Min.	115	166	659	496	222	187	175	104	27	32	83	84	2040
Mean	1807	2087	2293	2591	1388	1046	1932	2247	1934	1415	1181	1800	5234

Minimum Daily Discharge in Million Gallons per day

Year	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Yearly Min.
1928										171		160	
1929	171	160	430	236	225	160	193	193	120	198	332	401	120
1930	280	306	244	209	116	118	65	32	25	28	71	97	25
1931	187	146	166	244	209	104	85	176	74	50	43	70	43
1932	186	244	220	220	115	59	12	12	7.1	23	88	133	7.1
1933	332	401	244	233	209	62	22	55	21	11	28	40	11
1934	56	64	333	224	113	123	61	84	187	78	84	236	56
1935	362	289	353	406	199	48	66	61	79	92	156	88	48
1936	194	406	406	344	123	103	100	86	72	96	125	174	72
1937	546	594	410	359	189	139	127	121	165	154	213	232	121
1938	298	249	278	211	131	202	205	101	92	104	125	215	92
1939	276	550	421	295	218	112	100	143	147	135	153	163	100
1940	213	258	302	287	208	123	76	81	95	83	105	178	76
1941	234	220	220	202	62	61	107	55	14	13	42	55	13
1942	96	130	199	143	120	90	72	81	77	81	199	297	72
1943	326	323	313	350	141	83	68	13	7.8	11	43	59	7.8
1944	187	163	334	377	154	67	67	87	55	159	187	306	55
1945	300	255	306	212	144	85	72	151	132	191	194	210	72
Max.	546	594	430	406	225	202	205	193	187	198	332	401	121
Min.	56	64	166	143	62	48	12	12	7.1	11	28	40	7.1
Mean	250	280	305	268	157	102	88.1	90.1	80.6	93.2	129	173	58.3



Tar River near Nashville, N. C.

Mean Weekly Discharge in Million Gallons per day

Week Ending	1928	1929	1930	1931	1932	1933	1934	1935	1936	1937
Jan. 7		220	346	251	282	498	79	1000	2530	2180
14		333	309	349	1830	704	70	698	2670	1050
21		255	1010	430	352	691	64	434	1960	1400
28		198	749	281	257	956	87	1180	1610	1640
Feb. 4		202	652	178	629	529	107	416	547	2620
11		305	1200	167	638	529	96	331	1580	879
18		629	500	198	497	1030	114	636	3170	937
25		995	384	262	381	749	136	444	1360	930
Mar. 4		3310	328	237	255	424	833	724	541	685
11		3400	517	234	2340	352	769	425	515	652
18		1030	340	189	467	308	478	924	1200	769
25		717	382	469	424	478	665	521	2230	579
Apr. 1		545	274	507	717	283	1310	1540	982	497
8		371	617	1360	525	384	607	1810	2310	1270
15		401	510	879	446	571	3260	1360	3020	827
22		1050	384	262	281	1830	982	615	545	450
29		339	258	334	300	795	324	1300	425	2380
May 6		461	191	328	274	313	211	326	310	1210
13		711	135	1330	175	341	143	300	239	436
20		277	222	295	146	610	556	260	227	368
27		762	287	1270	135	369	240	698	162	247
June 3		340	147	223	133	243	548	205	123	197
10		371	545	172	79	123	685	160	129	363
17		547	659	282	142	141	280	129	230	234
24		417	424	236	155	74	479	114	1000	233
July 1		1050	202	147	153	129	208	64	325	408
8		637	159	191	87	71	510	248	424	291
15		1090	105	162	40	85	110	937	152	221
22		808	492	123	30	69	180	483	244	188
29		311	113	1030	19	94	260	283	424	603
Aug. 5		555	95	370	19	249	470	116	743	372
12		501	56	1270	161	183	474	151	267	182
19		566	43	1520	36	63	156	89	204	416
26		556	41	956	28	101	543	156	150	717
Sept. 2		548	34	205	18	82	1020	101	472	4190
9		291	157	290	16	100	295	1340	102	1300
16		172	205	112	15	74	691	399	337	541
23		189	65	89	12	34	833	160	85	222
30		185	55	125	19	27	290	362	81	174
Oct. 7	581	5980	39	72	30	21	180	177	236	298
14	258	360	35	57	48	15	138	133	532	385
21	198	233	79	103	559	16	91	107	317	269
28	190	231	50	78	103	20	81	101	151	492
Nov. 4	235	522	92	76	200	30	96	209	128	321
11	207	1410	121	79	322	57	131	447	178	224
18	191	652	96	67	206	47	129	665	439	483
25	205	554	88	67	414	55	136	312	191	286
Dec. 2	175	963	92	76	428	54	3170	253	193	443
9	180	1030	189	187	163	53	2300	185	426	307
16	183	463	134	249	885	66	295	743	1670	258
23	220	430	181	193	698	68	698	423	1080	249
31	203	503	457	240	1540	53	378	197	396	371
Maximum		5980	1200	1520	2340	1830	3260	1810	3170	4190
Minimum		172	34	57	12	15	64	64	81	174

Tar River near Nashville, N. C.

Mean Weekly Discharge in Million Gallons per day

Week Ending	1938	1939	1940	1941	1942	1943	1944	1945
Jan. 7	402	396	265	417	140	866	749	646
14	1130	313	293	269	110	439	247	950
21	379	601	618	474	123	1330	1040	583
28	612	545	324	344	138	801	269	382
Feb. 4	409	814	275	281	176	1470	185	284
11	318	1690	1300	262	214	1410	286	339
18	279	2780	736	359	406	555	1370	1340
25	306	827	975	253	840	397	1510	2010
Mar. 4	379	2240	414	229	275	328	513	1040
11	459	1140	437	833	904	1180	1000	911
18	814	1290	891	396	486	506	1380	434
25	475	665	419	259	377	711	2040	406
Apr. 1	298	678	433	685	404	1050	1090	319
8	379	969	352	1160	234	424	640	261
15	904	525	808	455	322	479	1580	229
22	311	545	950	256	196	988	1040	447
29	334	461	937	334	153	537	665	518
May 6	179	1680	359	195	370	311	305	262
13	143	461	275	169	439	280	452	207
20	336	315	273	120	450	245	188	251
27	329	266	1140	84	253	182	711	355
June 3	403	330	853	90	125	174	475	775
10	325	275	263	160	127	172	187	164
17	963	219	393	121	264	530	214	197
24	2420	230	459	88	180	331	145	190
July 1	1800	200	140	136	147	140	79	110
8	472	526	146	486	221	169	76	127
15	548	255	250	930	148	588	300	222
22	353	488	208	469	310	151	1230	3400
29	2840	1140	92	324	395	79	130	1060
Aug. 5	1420	588	145	353	108	63	1160	1640
12	476	217	191	112	372	47	460	627
19	160	512	4240	91	995	63	138	391
26	119	1450	879	161	525	26	98	484
Sept. 2	134	4120	365	71	190	30	94	214
9	160	373	195	180	756	35	67	247
16	99	207	193	72	294	32	176	711
23	548	165	118	48	101	50	1030	7240
30	160	194	110	54	137	61	520	499
Oct. 7	155	470	95	46	110	31	3550	316
14	119	184	101	32	566	34	245	288
21	110	159	88	26	2180	35	338	211
28	150	143	94	37	522	54	885	243
Nov. 4	139	181	148	113	371	74	214	204
11	182	191	132	59	249	112	203	244
18	135	158	1300	59	237	85	226	237
25	480	297	287	62	291	65	238	251
Dec. 2	302	198	260	67	659	64	1900	238
9	483	174	199	209	672	81	891	1160
16	356	169	202	132	678	76	943	541
23	222	180	340	106	492	65	379	501
31	606	478	446	238	724	263	333	1890
Maximum	2840	4120	4240	1160	2180	1470	3550	7240
Minimum	99	143	88	26	101	26	67	110



Tar River at Tarboro, N. C.

Location.- Water-stage recorder, lat. 35°53'40", long. 77°32'00", at highway bridge at Tarboro, Edgecombe County, and 6½ miles downstream from Fishing Creek. Datum of gage is 10.37 feet above mean sea level, datum of 1929, supplementary adjustment of 1936.

Drainage area.- 2,140 square miles.

Records available.- August 1896 to December 1900, October 1931 to date.

Average discharge.- 20 years, 1,494 million gallons per day.

Extremes.- 1896-1900, 1931-45: Maximum discharge, 24,000 million gallons per day Aug. 20, 1940 (gage height, 31.77 feet); minimum discharge, 23 million gallons per day Oct. 17, 22, 1933 (gage height, 0.45 foot).  
Maximum stage known, 34.2 feet, present datum, July 27, 1919 (discharge, 34,100 million gallons per day, from rating curve extended above 24,500 million gallons per day).

Remarks.- Records good except those based on once-daily gage readings, which are fair. Discharge for days of considerable change in stage computed using rate of change of stage as a factor. Some diurnal fluctuation at low flow caused by power plants above station.

Mean Monthly Discharge in Million Gallons per day

Year	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Yearly Mean
1896								406	769	454	544	2415	
1897	1172	3158	4386	2349	1021	445	774	258	317	191	435	924	1274
1898	891	679	1096	1630	2221	1034	1563	1120	876	527	864	2009	1214
1899	1576	7875	6161	3269	875	1232	808	1310	459	856	1032	985	2164
1900	1850	3845	3517	3102	1075	889	357	248	151	136	426	568	1329
1931										273	210	523	
1932	1596	1544	2771	1079	457	280	185	156	46.3	284	601	2028	921
1933	2481	2687	1525	2700	956	320	236	275	127	36.6	74.3	123	949
1934	163	321	1944	4096	846	1286	724	1796	2248	400	379	3634	1491
1935	2492	1440	2304	4046	1064	311	1338	336	1864	331	870	977	1444
1936	6473	5507	3356	4710	598	966	1017	947	344	707	720	2426	2304
1937	4607	5162	2271	3164	2225	825	1081	1651	2727	752	875	1141	2186
1938	1789	994	1315	1616	985	3087	2290	1217	1261	455	568	1089	1390
1939	1517	5370	4204	1883	1809	499	1671	1986	2995	564	620	663	1959
1940	1098	2370	1656	1917	1328	726	408	5336	629	260	964	818	1459
1941	1107	1177	1554	1655	384	350	2521	556	216	118	160	370	848
1942	357	1082	1900	767	805	326	486	996	660	2227	831	1806	1024
1943	2961	2695	2306	1991	740	644	1231	164	97.5	87.9	161	232	1100
1944	1417	2488	4454	3177	970	359	715	1213	620	2699	751	2728	1802
1945	2053	3235	2236	738	945	845	2901	2404	4895	846	744	2558	2026
Max.	6473	7875	6161	4710	2225	3087	2901	5336	4895	2699	1032	3634	2304
Min.	163	321	1096	738	384	280	185	156	46.3	36.6	74.3	123	848
Mean	1978	2868	2720	2438	1072	801	1125	1178	1121	610	591	1401	1494



# Tar River at Tarboro, N. C.

## Maximum Daily Discharge in Million Gallons per day

Year	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Yearly Max.
1896								1020	2530	1290	1230	6110	
1897	2880	5640	9430	6330	2530	827	2410	556	1590	497	1450	1980	9430
1898	1910	1020	2450	3560	5610	2210	4470	3150	2880	924	1770	5200	5610
1899	4040	12800	10200	8550	1310	4140	3530	4140	1450	3130	3660	3030	12800
1900	4140	8380	6230	6810	1810	2460	1290	543	355	401	1500	1320	8380
1931										458	286	762	
1932	5650	2670	9430	2250	917	491	827	570	85	1460	1430	4750	9430
1933	5390	4320	2870	6400	2070	610	377	924	297	89	111	164	6400
1934	228	1320	4610	10100	2380	2230	2500	7490	4820	833	1230	15100	15100
1935	4790	2610	5090	6910	3010	537	3090	645	7300	1250	1850	2950	7300
1936	12100	12300	7300	12900	1020	2930	2480	3730	1160	1920	1780	5260	12900
1937	11400	13800	3730	10100	11100	3200	4880	9430	10300	1260	1810	1550	13800
1938	3860	1360	2660	4610	2130	7950	8200	8590	5060	717	1450	2430	8590
1939	2550	10200	8590	3200	5160	820	3940	7360	14700	1620	1080	1950	14700
1940	2170	4790	3770	3440	3200	1520	1010	23300	1550	324	3520	1680	23300
1941	1740	2270	3730	4070	704	1210	5410	1290	514	342	299	743	5410
1942	563	3680	4590	1560	1740	652	1430	2330	2950	6780	2000	3360	6780
1943	6910	5540	4630	4680	1020	1340	4770	360	202	189	326	788	6910
1944	3770	5740	8790	7110	2530	769	4020	4530	2820	10300	3460	7240	10300
1945	4270	6720	5690	1470	4790	3700	9880	4540	15800	1250	975	6020	15800
Max.	12100	13800	10200	12900	11100	7950	9880	23300	15800	10300	3660	15100	23300
Min.	228	1020	2450	1470	704	491	377	360	85	89	111	164	5410
Mean	4353	5842	5766	5781	2946	2089	3584	4447	4019	1752	1558	3619	10719

## Minimum Daily Discharge in Million Gallons per day

Year	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Yearly Min.
1896								252	162	264	307	917	
1897	746	956	1420	827	446	233	200	160	127	110	224	497	110
1898	585	472	485	585	701	304	249	326	233	249	446	956	233
1899	808	1980	2480	1130	455	323	278	293	226	293	475	517	226
1900	724	982	1850	1290	594	355	149	149	87	56	56	265	56
1931										158	158	175	
1932	570	917	711	570	247	154	61	48	25	27	244	388	25
1933	1180	1670	1050	904	497	119	149	115	47	23	34	70	23
1934	109	160	969	950	394	382	262	234	749	228	235	756	109
1935	1210	930	1040	1470	579	176	145	194	275	202	333	526	145
1936	646	1560	1490	1070	315	236	348	265	132	241	268	541	132
1937	1450	2510	1360	1100	417	371	307	268	371	386	503	743	268
1938	924	769	743	691	341	950	482	268	233	278	341	652	233
1939	820	2620	1450	924	551	287	329	563	408	324	400	441	287
1940	743	743	975	917	659	339	222	307	297	200	244	565	200
1941	730	775	775	611	182	193	490	243	102	59	120	131	59
1942	268	408	704	377	320	193	140	229	194	191	550	762	140
1943	1080	1080	943	995	477	273	360	67	65	66	99	129	65
1944	599	537	1280	1340	441	157	133	209	120	489	489	1050	120
1945	1070	872	820	464	345	273	155	769	501	576	576	665	155
Max.	1450	2620	2480	1470	701	950	490	769	749	576	576	1050	287
Min.	109	160	485	377	182	119	61	48	25	23	34	70	23
Mean	792	1108	1141	901	442	296	248	261	229	221	305	537	144

Tar River at Tarboro, N. C.

Mean Weekly Discharge in Million Gallons per day

Week Ending	1896	1897	1898	1899	1900	1931	1932	1933	1934	1935
Jan. 7		1040	827	898	840		698	2410	157	2460
14		814	659	1030	1380		3230	1820	158	2290
21		1030	827	3140	2770		1820	2250	158	1500
28		1810	1040	1420	2660		743	2330	175	3540
Feb. 4		1690	1140	1980	1160		1630	3600	178	2000
11		3990	711	8590	1570		1940	1800	263	1030
18		2320	564	7300	5980		1600	3330	273	1750
25		2900	629	10500	4930		1210	3290	324	1580
Mar. 4		4210	560	7620	4990		904	1780	1300	2370
11		3110	1620	7880	4190		4400	1320	1590	1470
18		7110	1290	5260	3580		4710	1170	1390	2130
25		5800	1030	7880	2470		1260	2200	2000	1300
Apr. 1		1700	969	2800	3090		1760	1320	3400	4140
8		1860	2710	2870	2710		1560	1010	3360	5590
15		4660	1810	6980	2050		1150	1710	5500	5120
22		2230	950	1940	3450		846	4010	5920	2020
29		1000	924	1490	4410		646	4500	1880	3820
May 6		1320	1090	1230	1300		775	1040	840	1120
13		814	1770	975	950		489	956	590	665
20		1600	2140	956	866		397	1330	1130	665
27		590	2810	685	1310		300	769	769	2040
June 3		555	3040	630	846		277	581	1290	665
10		547	711	615	471		198	397	1530	382
17		377	493	2380	505		377	340	1240	301
24		454	1790	1630	1450		330	183	1480	278
July 1		320	736	371	1200		309	230	599	187
8		244	1130	433	381		349	256	1360	399
15		937	3560	455	229		156	196	407	1710
22		762	1400	547	276		98	260	333	2560
29		1230	625	1160	391		78	196	879	924
Aug. 5	409	484	691	3200	541		80	289	1300	631
12	524	293	475	1130	187		348	532	795	370
19	441	221	911	1170	242		142	149	937	230
26	285	205	1630	969	207		90	152	665	402
Sept. 2	373	331	2070	346	216		65	247	5450	257
9	249	698	904	250	153		61	148	1810	2340
16	313	182	550	782	95		59	198	1940	4570
23	1290	149	256	309	200		39	97	3730	516
30	1360	135	1340	550	121		27	61	1140	467
Oct. 7	795	130	411	398	91	320	79	42	620	609
14	335	132	450	2090	225	216	85	42	474	297
21	432	121	453	628	147	328	573	30	317	247
28	331	261	724	406	109	259	344	31	262	219
Nov. 4	312	601	652	1750	130	202	364	41	253	365
11	717	659	769	1380	982	218	503	66	320	769
18	762	270	592	645	315	210	518	72	334	1250
25	417	244	1290	502	213	203	814	90	352	995
Dec. 2	606	520	1160	659	300	205	749	93	1520	645
9	1670	833	3590	704	585	503	454	101	10900	599
16	1940	585	1850	717	401	624	1310	130	1400	1050
23	4870	820	1230	634	465	457	2940	134	1420	1750
31	1380	1470	1550	1810	859	596	3570	137	1210	641
Maximum		7110	3590	10500	5980		4710	4500	10900	5590
Minimum		121	256	250	91		27	30	157	187



Tar River at Tarboro, N. C.

Mean Weekly Discharge in Million Gallons per day

Week Ending	1936	1937	1938	1939	1940	1941	1942	1943	1944	1945	
Jan. 7	3160	3680	1050	1410	969	1250	370	2370	1350	1790	
14	10700	5050	3050	898	879	885	330	1430	930	3370	
21	5700	3150	1480	1670	1640	1160	313	2820	2570	2000	
28	8270	4770	1680	1860	1010	1070	355	4590	1120	1470	
Feb. 4	1890	11100	1430	2590	853	1080	539	4560	652	1030	
11	4770	5100	1030	3880	2640	937	550	4040	704	1160	
18	7110	3590	885	8980	3370	1600	579	2300	3010	3230	
25	8460	3260	795	5020	2430	1270	2460	1300	4770	5220	
Mar. 4	2260	2670	1010	6100	1440	859	917	1030	2210	5370	
11	1710	2340	1130	6520	1320	1830	2420	3020	3380	3530	
18	3770	2250	1910	3530	2090	2220	2910	2170	4920	1640	
25	5820	2650	1540	3000	2040	891	1340	2030	6780	1270	
Apr. 1	2950	1630	833	1640	1360	1780	1470	2990	4130	943	
8	4410	2100	917	2320	1220	2550	950	1660	2750	672	
15	11100	4700	3680	1760	1710	2380	982	1250	3160	531	
22	2700	1480	1140	2140	2290	859	659	2200	4720	749	
29	1320	3650	975	1290	2570	853	419	2690	2230	975	
May 6	956	7750	523	3290	1190	619	533	898	1210	630	
13	678	1640	421	3090	820	479	1030	652	1010	462	
20	568	1020	1080	937	1200	351	1070	820	548	535	
27	412	605	1310	625	1510	262	782	616	911	547	
June 3	303	433	1580	678	2010	200	317	659	1160	3070	
10	346	481	1700	577	717	424	213	381	464	840	
17	516	605	1830	457	691	322	405	1000	331	549	
24	1480	1560	3420	446	782	253	309	814	298	395	
July 1	1770	911	6520	437	348	808	397	413	187	333	
8	1240	736	2160	820	345	1780	343	457	162	238	
15	580	451	866	1120	466	3570	276	2230	205	605	
22	756	904	769	1010	557	4290	393	1520	2270	4650	
29	1450	1160	3420	3530	302	975	769	1090	372	6230	
Aug. 5	2400	2490	5330	2070	342	691	597	323	1890	3820	
12	743	523	1150	1100	717	547	590	185	2620	3220	
19	457	891	505	891	8590	381	1610	154	563	1860	
26	554	573	401	2600	12900	711	1510	111	260	1980	
Sept. 2	724	7110	313	6460	1600	338	579	90	241	1030	
9	347	4380	403	7620	827	370	782	82	163	730	
16	435	2830	266	704	717	203	1370	72	157	1780	
23	220	641	2400	507	427	134	312	79	1370	10900	
30	170	413	2240	474	333	158	239	158	891	7360	
Oct. 7	443	508	640	1020	282	130	280	98	7950	1100	
14	859	891	411	548	288	93	1160	82	1400	1000	
21	1210	609	316	422	250	74	5900	73	569	685	
28	479	924	428	356	236	89	1820	74	1720	685	
Nov. 4	313	795	486	412	262	267	1270	138	620	620	
11	605	541	446	643	368	157	730	134	521	756	
18	1210	1160	373	477	1490	140	711	238	620	814	
25	633	879	756	769	1540	141	582	145	711	769	
Dec. 2	619	1140	704	672	788	160	1200	135	2490	717	
9	917	1430	1060	530	665	360	1360	160	4720	2450	
16	3460	1030	1200	481	590	312	2620	179	3170	2600	
23	4440	820	724	472	872	309	1470	154	1480	2160	
31	1540	1220	1410	1120	1120	541	2030	434	1110	3430	
Maximum	11100	11100	6520	8980	12900	4290	5900	4590	7950	10900	
Minimum	170	413	266	356	236	736	213	72	157	238	



# Fishing Creek near Enfield, N. C.

Location.- Water-stage recorder, lat. 36°08'55", long. 77°41'45", at bridge on U. S. Highway 301, 2,000 feet downstream from Atlantic Coast Line Railroad bridge, 2 miles southwest of Enfield, Halifax County, and 4 3/4 miles downstream from Rocky Creek. Datum of gage is 76.25 feet above mean sea level, datum of 1929, supplementary adjustment of 1936.

Drainage area.- 521 square miles.

Records available.- October 1918 to date in reports of Geological Survey. October 1918 to December 1936 (annual discharge summaries) in Bulletin 39 of North Carolina Department of Conservation and Development.

Average discharge.- 28 years, 334 million gallons per day.

Extremes.- 1918-45: Maximum discharge, 13,100 million gallons per day July 24, 1919; maximum gage height, 19.6 feet July 24, 1919; minimum discharge, about 6.5 million gallons per day Oct. 19, 1933.

Maximum stage known, 21.0 feet Apr. 19, 1910.

Remarks.- Records fair. Discharge for days of considerable change of stage computed by using rate of change of stage as a factor. Slight diurnal fluctuation and some regulation at low flow caused by mills above station.

Mean Monthly Discharge in Million Gallons per day

Year	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Yearly Mean
1918										85.9	101	570	
1919	430	548	711	399	468	410	1809	520	184	166	152	149	497
1920	200	678	524	401	148	296	288	200	62.2	130	370	659	328
1921	646	556	311	303	318	95.6	76.9	21.4	18.9	18.3	28.2	69.8	203
1922	242	1040	1162	224	279	446	517	395	75.6	194	116	260	410
1923	497	461	1047	515	389	96.3	38.6	652	261	64.1	105	123	354
1924	375	568	503	266	1021	507	975	172	401	1079	273	297	538
1925	1189	604	402	233	292	241	177	208	126	84.0	151	237	328
1926	334	950	506	359	134	71.1	127	51.0	48.6	29.3	75.6	281	242
1927	232	479	410	414	98.2	160	73.0	175	108	125	95.6	644	250
1928	239	419	470	491	288	292	196	187	1340	260	187	197	379
1929	265	564	1169	326	530	620	497	318	118	1318	691	469	575
1930	468	473	339	343	141	254	111	51.5	36.2	35.6	75.6	189	208
1931	212	165	286	450	426	147	73.0	603	49.0	42.0	42.3	118	219
1932	358	311	589	244	121	89.8	53.4	57.7	19.8	57.5	115	368	199
1933	430	453	313	548	206	59.4	80.1	49.2	34.4	9.04	16.8	29.7	183
1934	39.0	128	461	711	176	189	110	233	282	65.9	127	963	291
1935	567	390	538	948	269	87.9	393	83.3	535	85.3	233	207	360
1936	1488	1132	752	930	159	194	202	153	61.8	127	134	501	484
1937	1110	760	497	896	271	113	281	415	307	205	218	231	440
1938	367	234	315	349	231	811	419	146	264	99.5	149	255	303
1939	309	1014	796	463	472	125	468	862	401	149	174	185	448
1940	246	600	379	462	310	151	125	1180	140	78.8	252	207	344
1941	250	253	366	343	107	102	493	116	37.3	24.0	35.6	87.2	185
1942	94.3	274	342	142	160	80.1	169	157	77.5	459	146	384	207
1943	610	485	516	408	169	154	181	31.2	23.9	19.1	45.2	73.6	225
1944	294	536	819	585	174	63.6	105	285	162	431	305	519	357
1945	428	817	410	183	483	154	687	453	880	207	211	709	467
Max.	1488	1132	1169	948	1021	811	1809	1180	1340	1318	691	963	575
Min.	39.0	128	286	142	98.2	59.4	38.6	21.4	18.9	9.04	16.8	29.7	183
Mean	441	552	553	442	290	223	323	288	224	202	165	321	334

Fishing Creek near Enfield, N. C.

Maximum Daily Discharge in Million Gallons per day

Year	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Yearly Max.
1918										107	309	2800	
1919	1270	1090	1860	1350	1190	1440	13100	2220	879	257	205	155	13100
1920	672	1940	1470	814	205	1370	1860	443	107	672	1600	1440	1940
1921	1660	1400	503	672	1190	309	257	61	29	29	61	205	1660
1922	730	2120	4300	419	859	1860	1860	1860	136	672	247	743	4300
1923	1420	995	2550	1860	1300	205	107	2710	1540	107	216	257	2710
1924	1090	1520	1300	516	2550	1470	5960	454	3290	7950	659	743	7950
1925	2030	1270	859	319	1660	730	491	541	419	116	205	567	2030
1926	1300	2030	963	1250	205	136	743	195	267	34	431	1600	2030
1927	1230	1470	1420	1300	247	541	205	879	362	506	309	2370	2370
1928	329	1300	1500	1550	1580	1810	724	599	5940	1040	267	288	5940
1929	576	1610	3310	859	1710	2830	1940	1630	247	5480	1940	1200	5480
1930	1090	1090	1110	904	229	749	375	147	65	61	249	724	1110
1931	620	307	924	1690	1730	336	122	3810	75	75	54	249	3810
1932	1430	530	2690	508	301	574	271	322	52	264	342	898	2690
1933	1090	814	685	1720	504	157	247	130	65	14	24	38	1720
1934	53	736	1150	2690	384	574	820	1090	1090	125	1520	9300	9300
1935	1640	1400	1470	2220	904	130	1360	169	3600	297	550	736	3600
1936	4550	3640	2160	3640	263	562	969	698	134	510	479	1960	4550
1937	3240	2780	1170	3370	756	244	1400	2460	1400	430	665	352	3370
1938	1010	325	730	1520	598	2460	1830	302	2160	187	329	545	2460
1939	603	2690	1960	1020	2160	197	1750	7300	5300	585	462	635	7300
1940	607	1880	1240	1200	704	311	467	7820	231	94	1030	504	7820
1941	528	672	1360	1340	264	833	1240	402	60	43	46	201	1360
1942	207	1240	1030	368	685	352	866	342	257	2060	294	956	2060
1943	1970	1430	1460	1430	323	468	969	83	65	27	129	262	1970
1944	904	1740	2310	2120	399	157	543	1450	1480	2770	2310	2380	2770
1945	1160	2180	1120	345	3690	743	3460	1020	4500	306	288	2430	4500
Max.	4550	3640	4300	3640	3690	2830	13100	7820	5940	7950	2310	9300	13100
Min.	53	307	503	319	205	130	107	61	29	14	24	38	1110
Mean	1223	1489	1578	1370	985	798	1627	1450	1250	886	544	1234	4070



Fishing Creek near Enfield, N. C.

Minimum Daily Discharge in Million Gallons per day

Year	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Yearly Min.
1918										70	23	107	
1919	205	309	267	247	257	145	61	205	107	61	88	107	61
1920	107	185	247	205	107	97	70	61	29	52	61	247	29
1921	205	267	195	145	126	34	14	17	16	17	20	34	14
1922	61	278	226	145	88	88	107	107	39	29	70	107	29
1923	205	247	362	205	155	20	29	29	29	29	52	52	20
1924	61	126	185	70	52	145	155	88	61	205	205	205	52
1925	419	319	226	126	107	107	107	107	29	52	107	107	29
1926	107	205	309	107	97	39	45	29	26	26	29	61	26
1927	145	107	145	165	61	52	45	39	39	29	39	70	29
1928	107	174	195	155	88	97	45	34	61	155	145	155	34
1929	165	145	329	205	205	185	121	97	65	156	317	297	65
1930	239	287	239	220	98	94	57	29	27	25	50	57	25
1931	130	114	130	114	130	79	57	65	37	27	39	50	27
1932	85	189	148	148	79	34	29	18	7.9	9.0	39	63	7.9
1933	199	291	199	199	104	32	33	28	14	7.1	9.0	23	7.1
1934	28	33	199	162	72	66	30	36	58	41	47	175	28
1935	281	238	238	332	139	54	71	46	68	60	87	110	46
1936	116	323	317	258	84	82	67	59	42	54	68	110	42
1937	408	428	302	273	118	58	63	61	72	75	137	168	58
1938	191	187	183	141	81	158	94	59	57	66	86	152	57
1939	183	334	340	222	127	70	78	110	97	95	101	119	70
1940	143	195	231	214	165	80	61	76	85	68	76	134	61
1941	166	167	176	151	67	45	92	61	22	15	29	44	15
1942	59	98	135	72	61	41	42	55	32	39	105	128	32
1943	220	247	233	229	102	57	40	9.0	13	14	26	39	9.0
1944	110	107	245	261	96	35	31	57	34	94	99	220	31
1945	245	203	203	136	89	68	58	144	121	156	171	199	58
Max.	419	428	362	332	257	185	155	205	121	205	317	297	70
Min.	28	33	130	70	52	20	14	9.0	7.9	7.1	9.0	23	7.1
Mean	170	215	230	182	109	76.4	63.0	63.9	47.7	61.6	83.0	119	35.6



Fishing Creek near Enfield, N. C.

Mean Weekly Discharge in Million Gallons per day

Week Ending	1918	1919	1920	1921	1922	1923	1924	1925	1926	1927
Jan. 7		392	114	374	127	824	138	1270	149	418
14		315	123	951	350	430	112	1190	205	174
21		278	181	991	167	247	671	1320	537	192
28		628	224	329	340	486	583	1090	483	176
Feb. 4		512	589	474	651	484	328	857	907	138
11		597	1120	401	1540	539	219	540	1140	126
18		340	745	761	924	528	196	826	428	412
25		613	355	646	761	258	1200	380	961	1090
Mar. 4		929	357	333	1170	782	930	505	942	317
11		1430	703	284	2630	603	484	399	378	981
18		516	536	428	1160	1540	501	377	741	359
25		306	576	233	315	1570	452	423	457	226
Apr. 1		443	402	295	297	447	313	318	340	175
8		331	603	330	276	299	317	259	324	417
15		258	348	366	191	493	344	279	464	789
22		781	250	315	240	919	273	222	442	265
29		257	365	198	171	291	172	162	219	257
May 6		337	268	226	175	873	118	172	191	165
13		536	157	224	166	300	1290	136	123	118
20		516	155	717	442	384	1360	408	143	78
27		382	107	207	413	223	1460	384	107	61
June 3		517	107	143	141	134	426	302	101	59
10		713	817	158	430	48	337	247	109	266
17		389	120	71	143	142	348	196	52	231
24		265	149	66	1110	114	775	316	43	105
July 1		288	146	47	178	67	771	238	67	66
8		319	99	138	779	29	2340	163	76	57
15		444	209	117	324	29	1120	143	76	101
22		1190	717	58	530	29	415	156	61	88
29		5730	210	17	353	60	227	220	273	55
Aug. 5		567	107	29	672	1180	187	157	125	166
12		934	143	18	252	1010	196	301	43	58
19		634	280	19	824	487	231	294	29	42
26		265	311	19	144	112	107	125	34	288
Sept. 2		328	107	19	177	134	114	148	69	315
9		245	80	16	108	204	90	137	84	141
16		162	61	21	57	81	103	53	59	114
23		107	61	19	61	127	532	220	29	78
30		107	34	19	61	675	965	85	28	50
Oct. 7	101	107	228	19	30	85	3760	63	28	33
14	78	84	52	17	417	57	307	68	30	288
21	78	227	52	17	266	44	242	89	29	178
28	88	227	52	17	133	70	231	107	29	44
Nov. 4	88	205	303	28	52	65	410	109	29	42
11	88	169	71	23	151	170	236	107	30	71
18	88	155	258	23	126	121	216	149	96	80
25	93	141	642	27	107	62	356	198	123	171
Dec. 2	220	98	890	46	107	99	263	185	81	83
9	207	141	624	56	186	163	227	347	67	1410
16	187	155	683	58	251	118	288	180	189	255
23	1440	155	317	37	289	116	222	219	163	922
31	513	155	782	123	346	96	449	220	702	244
Maximum		5730	1120	991	2630	1570	3760	1320	1140	1410
Minimum		84	34	16	30	29	90	53	28	33

Fishing Creek near Enfield, N. C.

Mean Weekly Discharge in Million Gallons per day

Week Ending	1928	1929	1930	1931	1932	1933	1934	1935	1936	1937
Jan. 7	194	227	296	152	158	286	39	557	1830	1230
14	245	391	253	236	820	398	36	503	1530	631
21	282	269	730	295	221	410	38	333	1880	969
28	242	189	616	193	189	585	43	969	1200	898
Feb. 4	223	190	553	140	443	401	53	312	419	2050
11	371	306	678	127	341	349	61	283	1130	633
18	346	541	378	160	316	652	81	468	2280	659
25	632	853	329	235	265	475	91	293	749	672
Mar. 4	350	1880	290	185	187	310	439	685	426	495
11	346	2010	530	205	1490	309	370	288	418	495
18	574	853	297	155	353	267	325	530	885	651
25	762	559	293	447	318	455	468	426	1200	437
Apr. 1	288	403	255	387	426	232	820	995	672	365
8	187	299	445	943	284	370	414	1410	1520	853
15	711	220	387	531	280	429	1630	950	1670	583
22	370	520	325	189	188	1100	605	537	376	324
29	586	248	246	192	196	391	239	930	317	1830
May 6	769	272	194	192	211	193	176	259	225	612
13	290	665	123	519	120	316	106	241	164	316
20	158	331	153	211	104	192	211	198	184	258
27	164	937	130	904	84	168	150	450	117	153
June 3	176	291	105	138	77	128	269	143	88	114
10	762	429	274	126	49	62	193	106	138	143
17	233	1250	411	151	88	54	222	89	167	101
24	107	538	245	185	65	35	198	76	318	93
July 1	104	388	127	125	191	57	103	63	191	122
8	68	205	113	72	76	116	185	161	290	100
15	174	853	94	81	43	67	37	704	92	343
22	282	833	164	70	31	59	34	531	178	292
29	306	220	89	74	29	82	68	284	149	432
Aug. 5	61	196	87	91	43	62	497	114	383	178
12	101	164	57	625	151	47	213	89	107	81
19	348	217	41	1580	39	30	92	54	140	125
26	259	736	37	328	26	54	180	110	89	443
Sept. 2	117	201	30	91	19	57	214	84	158	1380
9	1600	118	28	61	37	54	186	1610	64	568
16	435	87	45	47	24	45	369	379	79	248
23	3180	95	36	39	9.0	23	489	97	48	104
30	517	147	38	42	9.7	16	148	175	45	78
Oct. 7	499	2550	30	40	12	12	90	107	93	142
14	240	251	27	30	11	9.0	81	74	205	233
21	180	172	52	54	105	7.8	54	65	153	147
28	163	2710	31	46	72	8.4	49	67	78	277
Nov. 4	193	407	51	40	90	9.7	50	152	70	202
11	191	1150	129	45	96	12	76	300	90	145
18	168	459	59	44	78	17	71	274	236	344
25	204	539	63	40	198	22	78	236	112	205
Dec. 2	161	678	66	45	118	23	2240	166	129	205
9	174	730	159	79	74	28	1470	136	285	273
16	174	358	115	141	422	33	206	349	1090	205
23	235	371	139	77	364	31	344	233	517	185
31	211	435	347	181	645	28	251	116	255	262
Maximum	3180	2710	730	1580	1490	1100	2240	1610	2280	2050
Minimum	61	87	27	30	9.0	7.8	34	54	45	81



Fishing Creek near Enfield, N. C.

Mean Weekly Discharge in Million Gallons per day

Week Ending	1938	1939	1940	1941	1942	1943	1944	1945			
Jan. 7	240	257	183	251	81	378	400	396			
14	614	211	223	183	72	286	150	678			
21	245	366	385	318	83	930	525	399			
28	413	375	217	254	99	509	169	313			
Feb. 4	280	437	209	213	169	885	125	231			
11	225	1030	1140	213	152	853	206	289			
18	214	1660	463	396	331	388	840	1020			
25	215	528	575	213	457	300	885	1400			
Mar. 4	244	1600	314	194	225	246	349	756			
11	331	872	315	704	606	808	736	685			
18	417	795	634	295	329	339	853	320			
25	346	461	299	187	231	413	1370	300			
Apr. 1	198	466	313	358	220	646	603	219			
8	267	567	256	678	143	291	399	171			
15	724	365	629	325	225	334	1060	150			
22	225	436	499	191	115	691	498	183			
29	235	361	501	216	84	336	401	231			
May 6	117	1340	259	139	81	203	207	154			
13	165	371	224	145	168	186	187	125			
20	255	231	282	96	284	195	113	189			
27	263	203	444	78	145	125	202	192			
June 3	323	148	315	67	65	107	144	1690			
10	431	137	160	90	48	137	74	147			
17	648	136	152	85	71	287	57	141			
24	1470	110	147	61	75	131	46	116			
July 1	898	121	86	298	132	86	57	78			
8	195	205	127	393	102	87	43	79			
15	120	210	187	1010	61	470	49	118			
22	150	419	109	494	72	115	264	2070			
29	1180	924	72	135	434	88	50	530			
Aug. 5	330	615	136	101	121	63	749	808			
12	207	284	356	125	172	38	349	384			
19	123	242	3860	78	190	34	100	539			
26	94	418	659	185	221	18	59	275			
Sept. 2	70	3590	332	69	82	12	60	267			
9	106	291	172	54	112	14	46	220			
16	61	143	166	34	116	20	41	322			
23	833	113	109	25	41	22	300	2880			
30	115	127	92	29	39	42	291	315			
Oct. 7	127	280	83	30	48	23	1360	249			
14	77	128	84	21	623	17	131	216			
21	148	111	76	19	1030	15	142	168			
28	118	101	74	18	239	18	237	211			
Nov. 4	110	138	106	36	186	26	102	177			
11	114	178	98	32	124	51	116	220			
18	94	107	568	34	138	58	151	229			
25	212	258	193	39	128	43	167	208			
Dec. 2	216	145	196	45	185	38	1460	209			
9	282	132	148	89	364	50	576	736			
16	246	123	154	73	362	50	535	394			
23	162	131	227	70	280	44	259	412			
31	335	344	298	123	577	150	249	1340			
Maximum	1470	3590	3860	1010	1030	930	1460	2880			
Minimum	61	101	72	18	39	12	41	78			



MISCELLANEOUS MEASUREMENTS IN ROANOKE RIVER BASIN

Date	Stream	Location	Tributary To	Discharge M. G. P. D.
Dec. 10, 1911	Roanoke River	At Weldon	Albemarle Sound	2220
Feb. 25, 1912	do	do	do	12700
Feb. 27, 1912	do	do	do	24300
Feb. 29, 1912	do	do	do	29000
Mar. 4, 1912	do	do	do	6590
Mar. 17, 1912	do	do	do	63800
Mar. 18, 1912	do	do	do	102000
Mar. 19, 1912	do	do	do	79500
Mar. 20, 1912	do	do	do	17200
Mar. 20, 1912	do	do	do	17400
Mar. 21, 1912	do	do	do	10100
Aug. 15, 1928	do	At highway No. 40 near Weldon	do	54500
Feb. 9, 1929	do	do	do	5270
Nov. 17, 1938	do	Near Scotland Neck (Gaging station 1940 to date)	do	2090
Nov. 18, 1938	do	do	do	2160
Nov. 19, 1938	do	do	do	2160
Apr. 13, 1927	Dan River	Former gaging station near Asbury	Roanoke River	59.4
Apr. 13, 1927	do	do	do	288
*Apr. 4, 1923	do	Dam site, 5 miles west of Walnut Cove	do	420
Aug. 20, 1925	Town Fork Creek	Bridge at Walnut Cove	Dan River	12.0
Apr. 16, 1904	Mayo River	Madison, 1000 ft. above mouth	do	182
June 7, 1904	do	do	do	158
Sept. 27, 1904	do	do	do	130
Apr. 21, 1905	do	do	do	203
Aug. 21, 1905	do	do	do	251
June 21, 1906	do	do	do	313
Apr. 19, 1914	Beaver Island Cr.	Highway bridge at Michaels Mill, near Madison	do	17.4
Nov. 19, 1941	Smith River	Marshall Field Canal of Spray	do	146
Sept. 25, 1930	Chockyott Cr.	100 feet above State Highway 48 at Weldon	Roanoke River	0.48
*Feb. 12, 1910	Quannee Creek	Near Halifax	do	32.9

\*Discharge measured by float.

MISCELLANEOUS MEASUREMENTS IN TAR RIVER BASIN

Date	Stream	Location	Tributary To	Discharge M. G. P. D.
Sept. 12, 1932	Tar River	Cannady Bridge, 1 mile above Oxford intake	Pamlico River	0.053
Nov. 27, 1938	do	Above Oxford water supply intake, near Oxford	do	42.4
Sept. 23, 1930	do	500 feet below bridge on Oxford-Creedmore road	do	0.90
Aug. 28, 1919	do	Davenport Creek	do	126
Dec. 30, 1916	do	Rocky Mount Mills	do	411
Sept. 25, 1930	do	At bridge on State highway 40 North of Rocky Mount	do	57.3
Sept. 13, 1932	do	Bridge on State Highway 22 at Rocky Mount	do	12.0
May 2, 1928	do	U. S. Weather Bureau Station at Tarboro. Discharge records published 1896-1900; 1931-	do	4870
Sept. 22, 1928	do	do	do	15000
Sept. 23, 1928	do	do	do	14000
Sept. 26, 1928	do	do	do	15800
Sept. 26, 1928	do	do	do	15400
Sept. 28, 1928	do	do	do	7620
Oct. 27, 1943	do	At Old Sparta	do	86.6
Sept. 13, 1932	do	Near Center Bluff Landing, 6 miles above Greenville	do	49.5
May 3, 1928	do	U. S. Weather Bureau Station at Greenville. Discharge records published 1935	do	5680
May 4, 1928	do	do	do	6460
May 5, 1928	do	do	do	6650
Sept. 22, 1928	do	do	do	16100
Sept. 23, 1928	do	do	do	19600
Sept. 24, 1928	do	do	do	21600
Sept. 25, 1928	do	do	do	21200
Oct. 17, 1935	do	do	do	358
Oct. 24, 1935	do	do	do	251
Nov. 19, 1935	do	do	do	1520
Jan. 3, 1936	do	do	do	1620
Jan. 12, 1936	do	do	do	12700
Jan. 17, 1936	do	do	do	6980
Feb. 22, 1936	do	do	do	12200
Feb. 24, 1936	do	do	do	7820

Miscellaneous Measurements in Tar River Basin (continued)

Date	Stream	Location	Tributary To	Discharge M. G. P. D.
Feb. 25, 1936	Tar River	U. S. Weather Bureau Station at Greenville. Dis- charge records published 1935	Pamlico River	5570
Feb. 26, 1936	do	do	do	4530
Mar. 17, 1936	do	do	do	4560
Apr. 13, 1936	do	do	do	14000
May 21, 1936	do	do	do	534
July 11, 1936	do	do	do	950
July 13, 1936	do	do	do	631
Sept. 4, 1936	do	do	do	652
Oct. 5, 1936	do	do	do	736
Nov. 7, 1936	do	do	do	624
Jan. 10, 1937	do	At Greenville.	do	7560
Jan. 28, 1937	do	do	do	5920
Feb. 1, 1937	do	do	do	13300
Feb. 3, 1937	do	do	do	15500
Feb. 6, 1937	do	do	do	11300
Apr. 1, 1937	do	do	do	1710
Apr. 9, 1937	do	do	do	5480
May 2, 1937	do	do	do	11700
May 20, 1937	do	do	do	1010
Sept. 3, 1937	do	do	do	10100
Oct. 9, 1937	do	do	do	1030
Nov. 3, 1937	do	do	do	801
Dec. 16, 1937	do	do	do	1180
Feb. 12, 1938	do	do	do	1140
Mar. 31, 1938	do	do	do	1030
Apr. 13, 1938	do	do	do	5880
July 1, 1938	do	do	do	6720
Aug. 2, 1938	do	do	do	8720
Aug. 26, 1938	do	do	do	355
Dec. 20, 1938	do	do	do	782



Miscellaneous Measurements in Tar River Basin (continued)

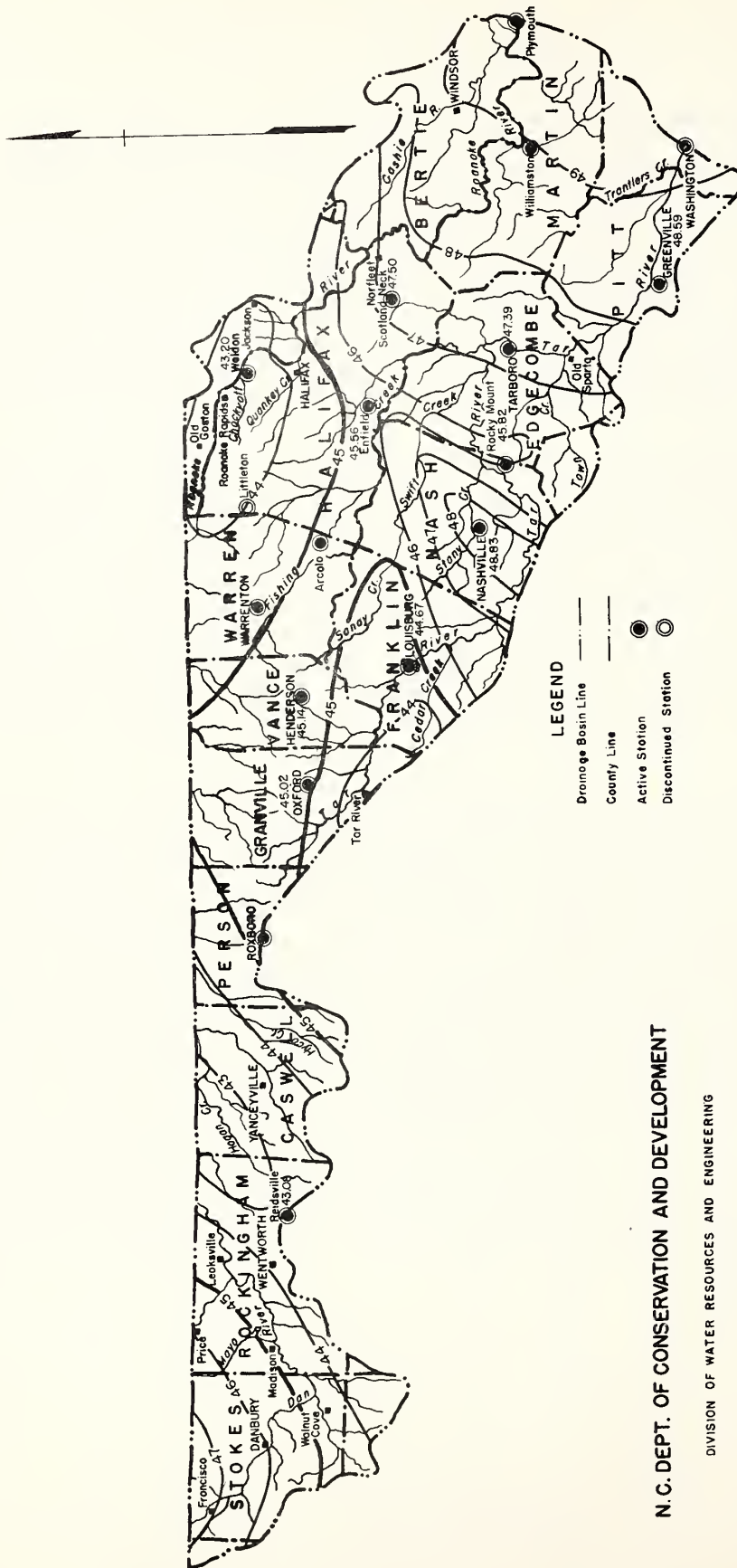
Date	Stream	Location	Tributary To	Discharge M. G. P. D.
Feb. 17, 1939	Tar River	At Greenville	Pamlico River	11600
Apr. 6, 1939	do	do	do	2400
June 14, 1939	do	do	do	598
Oct. 19, 1939	do	do	do	513
Nov. 14, 1939	do	do	do	943
Feb. 29, 1940	do	do	do	1850
Apr. 19, 1940	do	do	do	2670
Aug. 21, 1940	do	do	do	22700
Aug. 22, 1940	do	do	do	23200
Aug. 23, 1940	do	do	do	21600
Aug. 24, 1940	do	do	do	17600
Feb. 28, 1944	do	do	do	3400
Mar. 23, 1944	do	do	do	9820
Sept. 26, 1944	do	do	do	891
Dec. 20, 1912	Stony Creek	Near mouth $\frac{3}{4}$ mile above Hopedale Mills	Tar River	16.1
May 23, 1919	do	2 miles above Tar River	do	51.0
Mar. 3, 1920	Swift Creek	Hillards Mill site	do	37.5
Sept. 23, 1930	Sandy Creek	Tailrace of Bement's Mill, 6 miles east of Henderson	Swift Creek	3.20
Sept. 23, 1930	Fishing Creek	Near Oxford	Tar River	0.31
Sept. 12, 1932	do	State Highway 48 (U. S. 158) at Oxford	do	.060
Nov. 27, 1938	Hatchers	At Oxford filtration plant	Fishing Cr.	0.52

## CLIMATOLOGICAL

The United States Weather Bureau has collected records of rainfall from 19 stations located in the Roanoke and Tar River Basins. Temperatures are also taken at 10 of these same stations. Only 5 of these records are published in this Bulletin as a very good conception of the whole basin can be obtained from these and the maps showing isothermal and isohyetal lines. These stations were selected for their position in the basins as well as for the length of records. In order to give a better idea of the distribution of rainfall and temperature one station, located at Edenton, was selected outside of the basin proper. Daily records for all stations in these basins are available in the office of the Division of Water Resources and Engineering of the Department of Conservation and Development, Raleigh, North Carolina or the U. S. Weather Bureau, Raleigh, North Carolina.

The temperature of the Roanoke and Tar River Basins may be described as moderate, due to the location of the basins in the warm temperate zone and the relative small variation in elevation from sea level. The mean annual temperature as computed by the Thiessen Method for the period of 1921-45 for the Roanoke River Basin is 59.9°F. The mean annual temperature for the same period for the Tar River Basin is 60.8°F. Mean annual temperature for the two river basins range from 58°F in the extreme western section to 61.8°F in the extreme eastern section. These temperatures are fairly evenly distributed between the two extremes. Summer temperature in excess of 100 degrees are occasionally recorded, but freezing temperature of more than one or two days duration are rare. The effect of the formation of ice on the streams is negligible.

The mean annual rainfall over the Roanoke and Tar River Basins varies from 43.08 inches at Reidsville to 48.83 inches at Nashville as shown on map on page 62. Among the characteristics which are established, it may be noted that at the extreme western edge the average rainfall for the 25 year period is 47 inches, this decreases to 43.08 inches at Reidsville and then increases to 48.83 at Nashville, dropping again to 45.82 inches at Rocky Mount and again building up to 48.59 inches at Greenville. A low spot is also found around Weldon. The average rainfall for the Roanoke River Basin as determined by the Thiessen Method for the 25 year period 1921-45 is 45.67 inches. By the same method and same period the average rainfall for the Tar River Basin is 46.46 inches. The monthly precipitation is quite evenly distributed, with the maximum usually occurring in July or February and the minimum in November. Severe storms may occur during any month on this area, but are most frequent in the early spring, summer and early fall. In general, they are caused by local disturbances or by West Indian hurricanes. The greatest storm on record in the Roanoke River Basin occurred in August 1940, while the greatest storm in the Tar River Basin occurred in July 1919. Droughts have occurred frequently over this whole area. The most severe drought occurred during the year 1921.



**LEGEND**

Drainage Basin Line ———

County Line - - -

Active Station ●

Discontinued Station ○

N. C. DEPT. OF CONSERVATION AND DEVELOPMENT

DIVISION OF WATER RESOURCES AND ENGINEERING

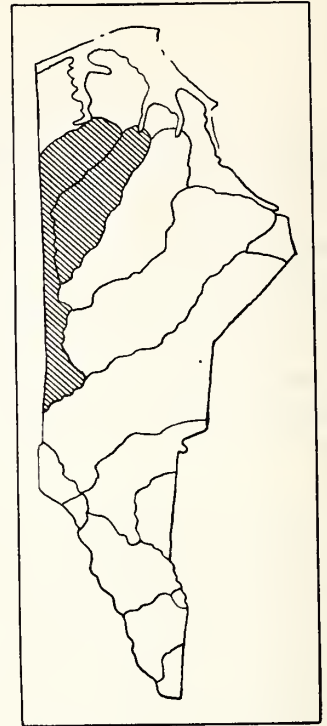
MAP OF

ROANOKE AND TAR RIVER BASINS

SHOWING

MEAN ANNUAL RAINFALL ISOHYETALS

1921-1945





**RAINFALL STATIONS IN THE ROANOKE AND TAR RIVER BASINS  
SHOWING RECORDS AVAILABLE**

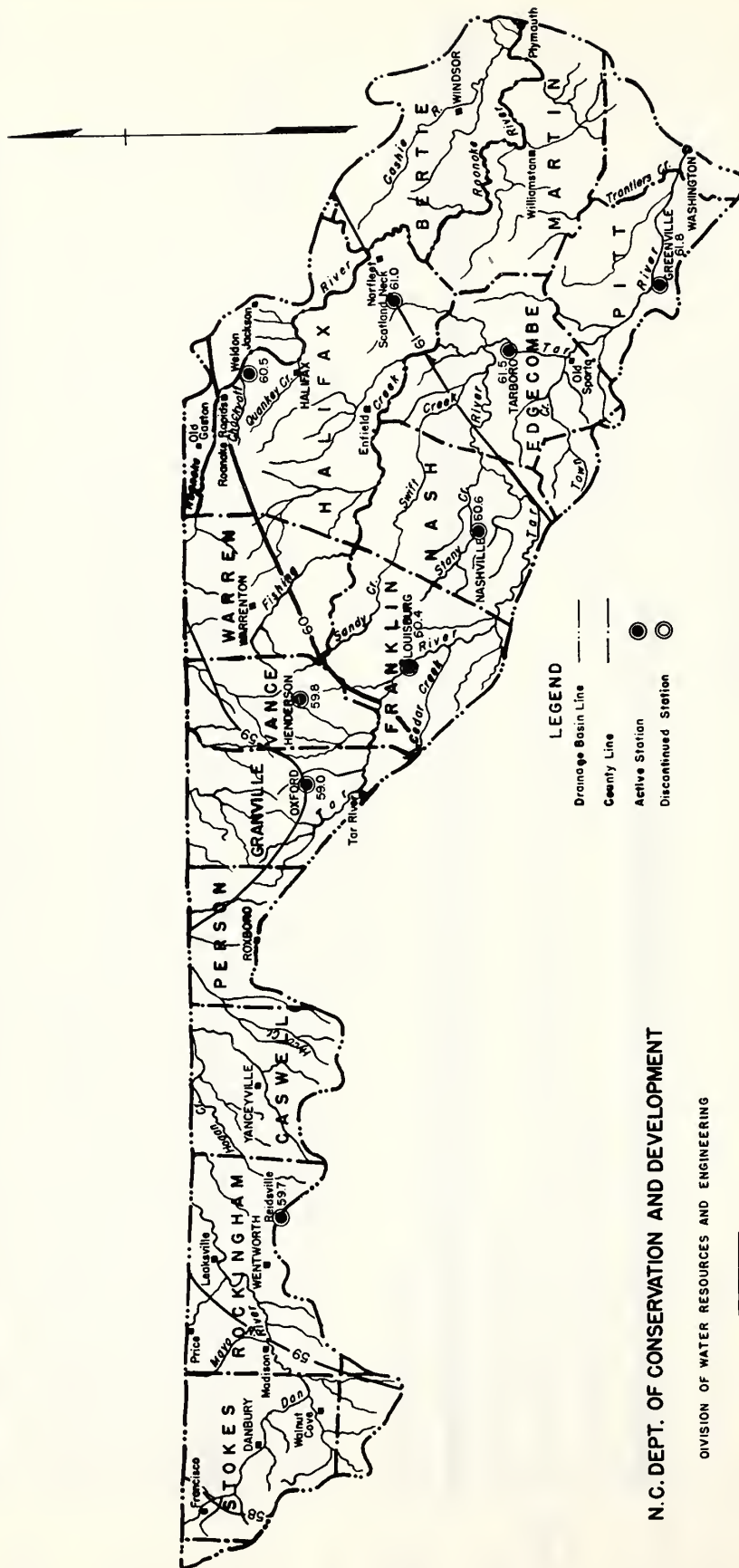
## Records Published

Records Not Published 

ROANOKE RIVER BASIN									
Eagletown									
Edenton									
Littleton									
Plymouth									
Reidsville									
Roxboro									
Scotland Neck									
Warrenton									
Weldon									
Williamston									
TAR RIVER BASIN									
Enfield									
Greenville									
Henderson									
Louisburg									
Nashville									
Oxford									
Rocky Mount									
Tarboro									
Washington									

## Records Published

Records Not Published 



N.C. DEPT. OF CONSERVATION AND DEVELOPMENT

DIVISION OF WATER RESOURCES AND ENGINEERING

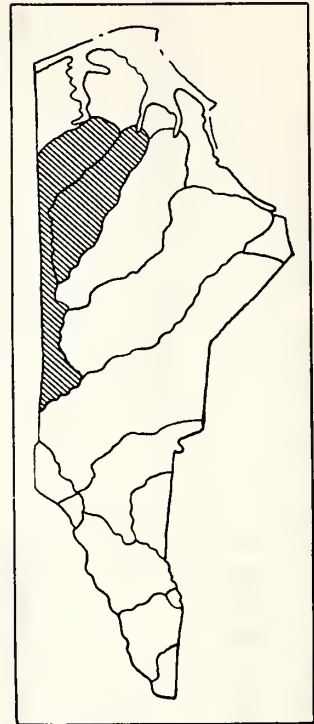
MAP OF

ROANOKE AND TAR RIVER BASINS

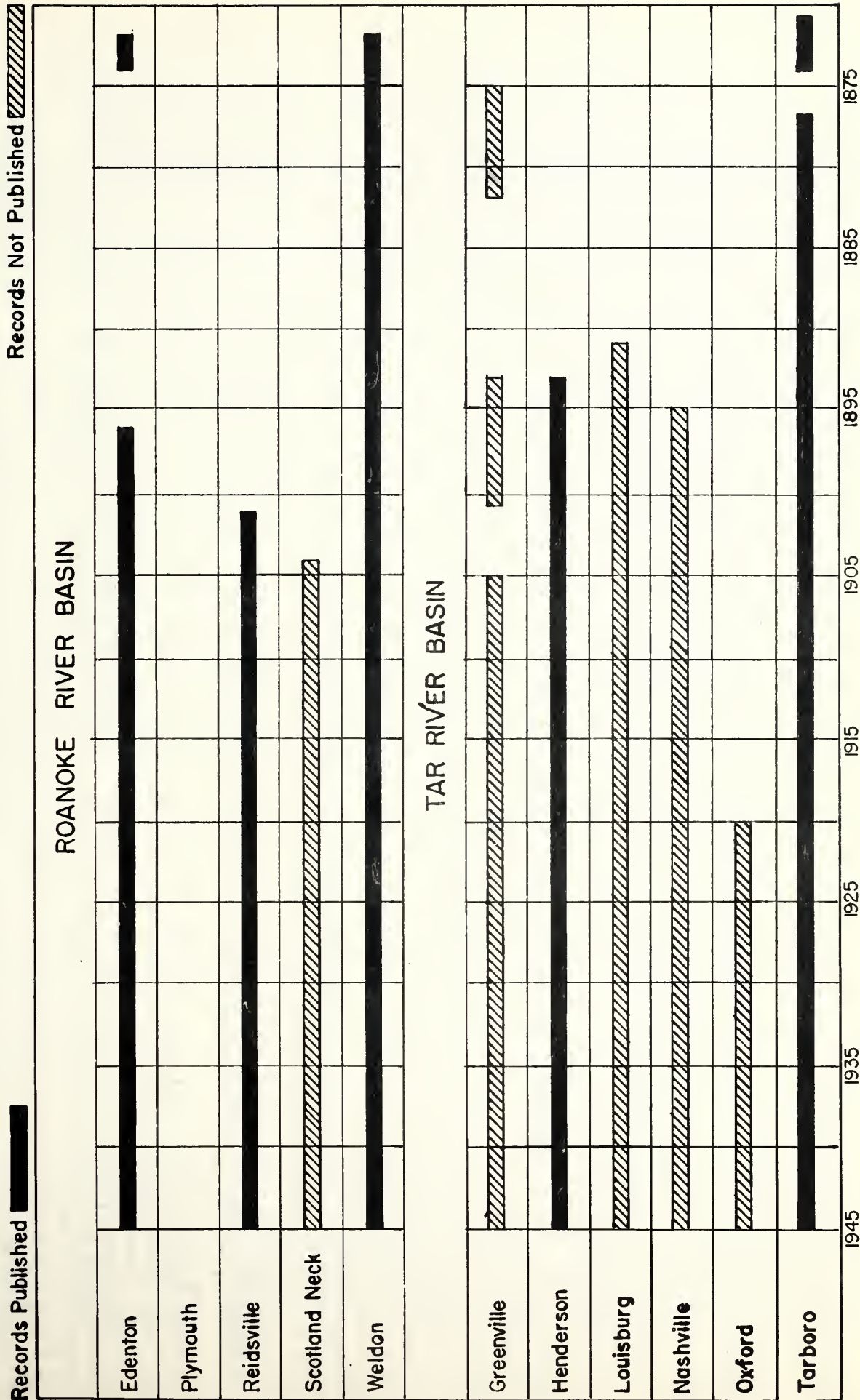
SHOWING

MEAN ANNUAL TEMPERATURE ISOTHERMS

1921-1945



# TEMPERATURE STATIONS IN THE ROANOKE AND TAR RIVER BASINS SHOWING RECORDS AVAILABLE





Precipitation at Edenton, Chowan County, North Carolina:  
Monthly and annual amounts (in inches and hundredths)

Edenton, Chowan County.- Elevation, 30 feet

Year	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Annual
1872	1.80	2.39	6.80	4.00	5.00	4.80	5.40	3.10	2.50	6.30	1.80	2.70	46.59
1873	8.10	7.40	2.60	1.20	9.20	1.80	5.50	-----	-----	-----	-----	-----	-----
1896	2.60	4.67	2.26	2.13	5.64	4.84	5.60	6.40	5.91	2.70	3.76	3.11	49.62
1897	.98	4.79	4.70	.98	6.22	3.28	3.05	4.92	1.16	5.66	2.71	3.81	42.26
1898	2.79	1.38	3.66	5.23	10.03	4.53	6.38	6.81	3.36	6.13	3.84	3.40	57.54
1899	5.15	8.15	5.20	3.85	2.58	2.58	5.98	9.48	.30	6.40	.64	1.93	52.24
1900	5.58	4.26	3.64	3.40	3.15	3.06	4.40	3.63	1.68	1.40	4.45	3.60	42.25
1901	2.75	2.18	4.85	4.51	5.60	3.00	4.90	7.80	6.70	2.80	1.51	3.93	50.53
1902	2.60	6.35	3.53	2.38	2.11	5.65	4.31	6.85	4.30	4.27	6.95	1.78	51.08
1903	2.95	3.91	5.15	4.59	4.13	4.00	5.97	4.70	.81	5.55	1.96	3.13	46.85
1904	3.67	5.91	5.06	.50	3.03	3.14	7.80	5.33	2.88	1.90	2.35	5.80	47.37
1905	3.70	6.20	2.43	8.20	3.05	2.23	9.47	5.80	7.50	2.64	1.65	5.80	58.67
1906	4.30	5.80	5.50	1.10	3.25	9.27	16.18	10.38	2.46	6.40	.90	3.80	69.34
1907	.82	3.85	4.45	5.20	6.10	6.10	9.40	4.30	2.00	1.55	5.60	3.03	52.40
1908	4.06	3.04	4.30	1.67	5.60	5.38	10.23	6.40	4.75	5.26	1.77	3.98	56.54
1909	1.91	3.60	1.47	7.89	5.02	9.77	4.10	6.00	1.85	1.53	2.00	1.81	46.95
1910	3.80	3.87	3.01	4.50	7.68	9.43	5.59	8.75	2.45	2.23	1.00	3.40	55.71
1911	2.95	2.50	4.38	2.60	.90	2.65	2.90	4.03	4.85	4.15	4.06	5.35	41.32
1912	4.92	4.55	4.95	2.40	4.20	7.20	4.45	.40	3.55	1.15	2.10	2.20	42.07
1913	4.70	2.65	6.81	.90	6.45	4.85	4.73	3.35	7.20	5.01	2.40	3.35	52.40
1914	3.00	2.38	3.35	3.03	1.30	5.25	8.90	5.82	4.00	3.25	4.80	4.50	49.58
1915	3.60	1.55	2.20	2.50	3.00	6.00	4.45	1.90	2.60	3.53	1.30	2.90	35.53
1916	4.00	4.05	2.70	2.08	4.90	3.50	5.50	3.50	2.82	2.50	.70	3.40	39.65
1917	4.25	1.80	2.74	4.26	3.30	8.40	13.10	4.90	11.50	2.50	1.00	3.81	61.56
1918	2.40	.75	1.40	6.90	3.50	7.80	6.25	12.05	4.50	2.70	1.20	5.90	55.35
1919	2.30	3.40	3.40	2.40	6.75	3.10	14.35	5.37	1.00	2.04	.65	2.50	47.26
1920	2.20	5.85	4.90	7.40	.16	4.54	7.26	6.25	3.35	.35	4.50	7.45	54.21
1921	2.05	4.50	5.50	4.00	10.08	4.00	3.15	2.50	5.32	.90	2.65	3.40	48.05
1922	4.18	9.85	6.95	3.30	5.50	10.30	11.10	7.90	2.20	2.37	.62	5.80	70.07
1923	2.58	5.40	3.55	5.95	3.00	.95	9.36	4.25	1.95	3.05	2.65	1.55	44.24
1924	6.74	7.35	2.40	2.61	5.75	10.10	5.30	8.32	7.50	.20	1.80	4.92	62.99
1925	5.35	1.12	3.35	2.92	2.15	6.82	6.80	6.95	1.40	3.70	5.08	7.45	53.09
1926	5.35	5.97	6.32	4.30	1.20	4.50	7.06	3.35	1.00	3.04	4.30	4.15	50.54
1927	1.73	3.90	2.85	4.43	4.79	4.85	6.53	8.32	3.65	4.52	3.97	7.20	56.74
1928	1.23	3.96	2.17	5.25	3.49	9.70	6.00	3.20	14.80	1.50	2.57	5.10	58.97
1929	3.90	5.69	5.50	.80	9.29	6.50	3.25	2.65	6.10	6.60	4.80	3.20	58.28
1930	4.69	1.70	2.58	3.18	1.72	3.60	1.89	2.27	.70	2.18	3.35	5.15	33.01
1931	2.58	1.52	4.40	3.60	4.16	2.25	7.20	7.10	4.30	.30	.35	3.63	41.39
1932	4.33	2.62	4.22	3.25	3.33	1.27	1.48	4.20	3.35	3.92	6.70	4.70	43.37
1933	2.67	3.71	2.42	2.12	2.63	1.75	5.53	5.63	5.59	.16	.40	1.10	33.71
1934	2.54	4.80	5.45	5.19	4.39	2.68	7.01	7.68	4.87	.15	2.53	2.44	49.73
1935	3.26	2.55	5.58	4.93	1.82	2.58	10.90	2.83	4.42	.17	3.61	2.20	44.85
1936	5.41	4.49	3.99	4.07	.50	6.79	10.26	3.11	2.85	5.73	2.63	6.10	55.93
1937	8.44	4.91	1.56	4.00	.60	1.52	12.65	6.85	2.49	2.40	5.94	2.58	53.94
1938	2.46	1.70	2.00	7.13	8.35	8.54	7.87	3.54	12.71	2.65	2.91	2.65	62.51
1939	4.81	6.52	4.02	4.60	3.16	2.66	12.88	10.15	1.15	5.64	2.41	1.76	59.76
1940	3.42	2.11	3.08	4.19	2.90	4.54	7.33	8.83	1.67	1.15	3.97	2.85	46.04
1941	2.36	2.69	3.85	2.98	.72	4.34	5.89	5.54	2.39	2.13	1.12	4.89	38.90
1942	2.87	1.59	5.54	.69	2.12	1.50	3.21	7.29	2.71	8.91	1.66	4.59	42.68
1943	4.17	1.19	5.59	1.65	3.56	3.54	6.10	3.30	.42	2.70	1.32	2.66	36.20
1944	4.68	5.64	6.88	3.13	2.36	2.62	3.48	3.92	9.33	1.87	3.54	2.61	50.06
1945	2.27	5.26	.70	1.28	2.58	6.08	13.31	6.23	5.61	.95	3.08	5.46	52.81



Precipitation at Edenton, Chowan County, North Carolina:  
Monthly and annual amounts (in inches and hundredths)

Summary of Period 1921-45

	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Annual
Max.	8.44	9.85	6.95	7.13	10.08	10.30	13.31	10.15	14.80	8.91	6.70	7.45	70.07
Min.	1.23	1.12	.70	.69	.50	.95	1.48	2.27	.42	.15	.35	1.10	33.01
Mean	3.76	4.03	4.02	3.58	3.61	4.56	7.02	5.44	4.34	2.68	2.96	3.93	49.91
Summary of Record													
Max.	8.44	9.85	6.95	8.20	10.08	10.30	16.18	12.05	14.80	8.91	6.95	7.45	70.07
Min.	.82	.75	.70	.50	.16	.95	1.48	.40	.30	.15	.35	1.10	33.01
Mean	3.58	4.00	3.96	3.56	4.08	4.81	6.96	5.57	4.01	3.07	2.74	3.81	50.05

Mean Temperature at Edenton, North Carolina

Year	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Annual
1896	41.6	44.8	48.8	61.7	71.4	74.4	79.5	80.4	71.2	59.0	56.9	41.2	60.9
1897	39.9	46.2	54.5	57.8	67.3	75.7	80.1	78.0	71.6	64.0	53.0	45.5	61.1
1898	45.9	42.2	55.6	55.9	68.4	75.0	80.3	80.5	73.8	63.1	49.6	43.0	61.1
1899	41.9	36.1	51.0	56.7	68.6	77.2	78.2	78.8	71.5	64.3	54.0	43.5	60.2
1900	42.5	42.0	48.2	58.8	69.0	76.8	82.3	83.8	76.1	65.2	55.0	42.8	61.9
1901	42.9	38.6	53.2	54.4	68.0	---	81.6	---	---	60.5	45.4	43.3	---
1902	39.8	37.9	53.6	58.8	69.4	76.4	80.6	75.8	70.8	62.7	58.6	45.6	60.8
1903	44.3	46.7	58.6	58.9	68.4	73.0	80.6	79.6	71.6	60.4	48.8	39.0	60.8
1904	36.8	37.6	51.3	56.2	67.2	75.2	78.2	75.4	69.6	57.4	47.6	40.3	57.7
1905	37.2	35.6	52.0	57.4	71.3	75.3	78.2	73.8	71.1	60.6	52.0	44.8	59.1
1906	47.2	41.0	47.4	60.4	68.5	77.3	76.5	79.0	75.0	62.0	51.6	45.9	61.0
1907	48.6	39.3	55.7	52.0	64.6	70.0	78.3	76.0	74.1	55.6	50.0	44.7	59.1
1908	40.9	41.6	54.9	60.7	67.4	73.5	79.4	75.7	69.3	61.0	52.4	46.2	60.2
1909	45.1	49.4	48.6	59.6	65.4	75.6	---	---	68.9	56.2	53.0	39.0	---
1910	41.2	43.8	56.4	61.9	66.0	73.2	77.6	74.9	71.6	64.4	45.2	37.8	59.5
1911	46.4	44.0	47.8	56.3	68.6	76.0	79.8	80.3	78.4	61.9	51.6	48.7	61.6
1912	37.4	37.8	49.2	63.2	70.6	74.2	78.3	79.8	75.6	62.4	51.0	47.0	60.5
1913	52.7	45.2	56.8	58.8	70.3	77.2	81.2	79.0	71.4	63.6	51.0	44.8	62.7
1914	45.4	41.0	44.2	58.6	68.7	77.2	78.6	78.9	69.4	63.7	49.6	42.4	59.8
1915	43.4	47.1	42.7	60.7	69.8	72.8	78.8	79.8	74.0	63.6	51.6	40.2	60.4
1916	47.7	44.2	45.8	58.4	71.0	74.8	78.5	78.0	70.0	63.2	50.3	43.2	60.4
1917	44.2	43.2	51.8	59.8	63.6	75.4	80.2	75.8	68.0	58.0	45.8	34.2	58.3
1918	33.2	47.2	54.4	58.0	71.9	73.2	75.3	80.0	68.0	64.4	51.2	47.8	60.4
1919	42.8	42.9	52.4	58.2	69.4	73.4	79.4	77.0	72.4	71.5	51.4	40.4	60.9
1920	40.6	40.2	54.1	61.4	63.0	76.1	78.4	78.8	72.7	61.6	50.2	45.0	60.2
1921	44.2	45.6	59.8	62.0	64.2	75.9	80.6	76.4	76.6	61.4	54.8	44.2	62.1
1922	40.6	47.8	53.8	61.6	68.6	77.0	79.8	75.2	72.6	64.2	52.2	47.4	61.7
1923	44.0	40.5	54.0	58.8	66.1	76.0	76.8	79.6	74.2	59.0	49.9	49.4	60.7
1924	42.0	42.0	48.6	58.8	69.2	76.8	77.8	78.3	71.2	59.6	51.8	44.5	60.0
1925	41.6	52.0	54.4	61.6	65.2	78.8	81.0	76.2	75.9	59.8	51.4	43.0	61.7
1926	42.6	48.4	45.8	57.0	67.7	74.7	80.4	81.8	74.7	63.3	52.9	43.9	61.1
1927	41.8	51.0	53.0	58.0	69.8	73.2	78.7	75.5	73.5	63.9	55.0	45.8	61.6
1928	41.7	44.8	52.6	58.6	67.0	76.8	80.6	81.2	70.6	65.0	52.6	40.4	61.0
1929	*45.0	44.4	55.0	64.4	67.8	75.6	79.6	77.0	72.9	61.7	54.0	46.6	62.0
1930	46.0	47.6	49.6	60.3	72.8	76.6	82.8	78.2	78.8	59.6	51.5	40.8	62.0
1931	42.5	45.2	45.7	57.6	67.6	76.0	83.0	80.0	76.6	63.7	57.1	50.8	62.2
1932	52.1	50.6	48.1	58.0	67.1	79.8	81.8	78.7	71.9	63.2	52.0	47.6	62.6
1933	49.6	46.0	51.3	60.0	72.6	79.3	76.1	78.7	77.3	62.2	49.7	48.4	62.6
1934	46.4	35.3	48.0	59.4	67.6	*78.3	*80.0	81.1	77.0	61.6	54.4	43.4	*61.1
1935	43.6	44.9	57.3	57.2	67.6	78.1	80.4	79.3	72.0	62.5	55.2	37.2	61.3

\*Interpolated

Mean Temperature at Edenton, North Carolina  
(continued)

Year	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Annual
1936	38.4	39.4	55.5	57.2	69.8	76.3	80.5	80.1	74.4	64.8	50.7	45.9	61.1
1937	54.2	44.5	48.0	59.4	67.9	78.8	80.2	80.0	69.8	59.6	48.7	41.6	61.1
1938	42.0	48.5	56.0	62.8	69.1	75.2	79.4	80.1	72.6	60.6	54.6	43.8	62.1
1939	44.4	49.0	53.4	59.4	68.0	79.8	78.0	79.2	75.1	63.8	46.9	43.8	61.7
1940	31.0	43.3	47.8	57.2	67.2	78.6	79.2	77.3	69.8	59.2	51.4	47.8	59.2
1941	39.8	37.8	43.7	60.8	69.5	75.4	80.5	77.8	74.2	65.6	52.0	45.8	60.2
1942	38.3	40.6	57.0	61.4	72.2	80.2	83.5	78.0	75.7	64.4	54.7	42.8	62.4
1943	43.0	44.2	48.4	56.0	72.9	78.8	81.1	79.4	70.2	59.4	50.5	42.9	60.6
1944	41.1	45.4	50.2	60.4	74.3	79.2	79.2	77.1	74.6	61.4	50.1	39.6	61.0
1945	*39.3	45.6	62.2	*64.5	68.6	79.4	80.2	76.8	76.9	62.0	55.0	38.7	*62.4
Summary of Period 1921-45													
Max.	54.2	52.0	62.2	64.5	74.3	80.2	83.5	81.8	78.8	65.6	57.1	50.8	62.6
Min.	31.0	35.3	43.7	56.0	64.2	73.2	76.1	75.2	69.8	59.0	46.9	37.2	59.2
Mean	43.0	45.0	52.0	59.7	68.8	77.4	80.0	78.5	74.0	62.1	52.4	44.3	61.4
Summary of Record													
Max.	54.2	52.0	62.2	64.5	74.3	80.2	83.5	83.8	78.8	71.5	58.6	50.8	62.7
Min.	31.0	35.3	42.7	52.0	63.0	70.0	75.3	73.8	68.0	55.6	45.2	34.2	57.7
Mean	42.9	43.6	50.7	59.1	68.6	76.2	79.6	78.4	73.0	62.0	51.7	43.7	55.9

Highest Temperature at Edenton

Year	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Highest
1896	63	67	77	88	92	89	94	95	91	78	81	65	95
1897	70	72	79	83	86	95	95	95	94	82	74	68	95
1898	72	69	84	82	92	95	94	92	90	84	71	63	95
1899	64	60	73	85	90	96	95	98	98	81	74	69	98
1900	66	70	71	83	89	94	100	99	93	84	79	75	100
1901	69	68	76	76	87	--	99	--	--	80	75	69	--
1902	68	68	78	85	89	93	98	94	90	85	78	70	98
1903	70	70	77	87	95	95	96	95	89	85	76	61	96
1904	63	79	79	82	90	95	96	89	88	82	69	67	96
1905	66	61	80	82	92	96	95	90	89	82	71	67	96
1906	72	75	67	90	93	98	90	92	90	83	76	72	98
1907	74	64	90	80	87	90	96	89	94	82	72	67	96
1908	64	66	81	86	90	92	92	91	87	81	74	73	92
1909	73	75	74	84	86	91	--	--	86	78	74	68	--
1910	68	78	88	92	90	92	96	89	91	86	71	62	96
1911	76	73	77	81	90	96	95	95	90	88	72	74	96
1912	64	69	81	85	90	97	94	98	98	86	82	75	98
1913	78	72	78	86	93	98	99	95	92	86	75	65	99
1914	73	71	75	93	95	99	98	95	93	84	78	70	99
1915	68	75	66	92	93	95	98	97	96	87	84	72	98
1916	75	74	76	88	93	93	93	93	91	85	79	74	93
1917	71	78	78	94	93	95	98	96	90	79	70	66	98
1918	61	79	83	82	95	98	91	102	89	87	78	74	102
1919	67	72	75	85	93	92	96	94	90	89	83	69	96
1920	74	61	--	86	86	97	94	94	92	81	75	72	97
1921	72	71	86	87	92	96	96	96	94	85	83	69	96
1922	76	79	82	93	90	94	95	94	94	89	78	72	95
1923	75	76	81	85	88	100	100	97	93	80	72	71	100
1924	69	70	82	84	94	100	99	98	94	85	79	76	100
1925	66	76	82	95	97	100	98	95	93	88	71	70	100

\*Interpolated



Highest Temperature at Edenton (continued)

Year	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Highest
1926	67	74	82	88	92	98	99	101	96	91	77	70	101
1927	74	78	85	90	95	96	97	95	95	91	80	77	97
1928	80	68	84	82	95	96	98	99	91	98	80	--	99
1929	74	72	88	93	87	96	95	93	92	82	84	74	96
1930	74	81	75	95	93	98	100	100	96	87	74	62	100
1931	69	67	67	82	90	96	99	99	95	88	80	76	99
1932	76	80	82	88	91	97	100	100	97	82	75	69	100
1933	74	75	81	83	97	102	97	98	94	88	78	73	102
1934	70	68	78	84	91	97	98	96	91	85	79	72	98
1935	74	70	85	85	91	95	97	99	90	88	83	67	99
1936	72	78	83	86	96	101	101	97	95	85	80	68	101
1937	80	73	79	87	94	96	98	94	93	89	70	70	98
1938	65	75	85	86	93	92	95	98	92	87	88	69	98
1939	74	74	85	90	94	97	94	95	97	91	71	66	97
1940	62	67	77	83	92	98	101	94	92	88	74	76	101
1941	64	58	76	90	98	94	98	100	94	95	77	72	100
1942	70	65	78	90	95	98	105	104	95	83	80	71	105
1943	73	74	80	87	--	95	--	--	96	82	74	75	--
1944	78	73	81	83	94	99	97	97	99	86	73	66	99
1945	62	79	90	87	91	98	99	92	91	84	80	60	99
Summary of Period 1921-45													
Max.	80	81	90	95	98	102	105	104	99	95	88	77	105
Min.	62	58	67	82	87	92	94	92	90	80	70	60	95
Mean	72	73	81	87	93	97	98	97	94	87	78	70	99
Summary of Record													
Max.	80	81	90	95	98	102	105	104	99	95	88	77	105
Min.	61	58	66	76	86	90	90	89	86	78	69	60	92
Mean	70	72	80	86	92	96	97	96	93	85	77	70	98

Lowest Temperature at Edenton

Year	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Lowest
1896	--	11	25	32	43	58	64	59	42	37	30	19	11
1897	12	25	31	31	41	54	63	65	46	41	29	20	12
1898	19	16	28	31	43	56	61	69	53	39	26	16	16
1899	16	5	26	30	46	57	55	63	43	40	33	12	5
1900	15	15	25	34	48	54	60	63	53	38	32	18	15
1901	21	14	19	37	46	--	65	--	--	36	20	15	14
1902	19	18	28	36	48	52	65	50	48	35	35	20	18
1903	20	13	33	31	46	50	56	62	44	33	24	18	13
1904	13	12	26	31	42	50	60	56	43	34	27	20	12
1905	14	12	24	34	46	46	63	50	44	37	26	23	12
1906	25	17	25	33	38	56	60	67	56	28	27	19	17
1907	17	16	29	28	40	50	58	60	47	30	29	22	16
1908	18	18	25	30	40	54	58	58	47	38	28	25	18
1909	20	20	28	30	41	55	--	--	40	28	25	13	13
1910	17	11	27	37	38	50	59	54	50	28	27	16	11
1911	23	23	22	34	35	52	61	61	53	43	28	27	22
1912	12	0	23	36	42	46	60	53	53	35	26	22	0
1913	27	20	25	33	36	50	52	62	43	31	24	21	20
1914	17	14	17	29	41	50	57	56	42	29	23	16	14
1915	20	20	22	29	42	55	54	57	47	33	25	19	19
1916	17	14	20	34	48	54	58	58	46	37	21	20	14
1917	18	9	28	31	41	55	63	55	47	37	20	5	5
1918	14	14	26	29	41	50	52	54	41	40	26	20	14
1919	10	22	29	25	45	50	50	57	47	43	23	16	10
1920	12	17	--	29	35	51	55	60	50	35	24	21	12

Lowest Temperature at Edenton (continued)

Year	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Lowest
1921	18	22	31	30	43	45	66	50	55	33	26	20	18
1922	15	12	30	33	39	56	61	50	48	31	21	24	12
1923	19	16	24	21	40	50	55	57	45	35	24	26	16
1924	10	22	27	30	46	54	59	55	49	35	24	17	10
1925	20	26	--	40	40	46	59	54	54	30	24	11	11
1926	18	20	16	30	37	54	56	60	56	28	27	15	15
1927	11	27	19	31	42	49	52	58	46	40	26	19	11
1928	12	22	27	32	38	55	60	60	44	32	25	22	12
1929	22	19	20	34	42	46	55	55	48	38	20	14	14
1930	18	18	23	32	48	47	62	55	50	28	18	20	18
1931	18	24	25	33	45	54	66	60	46	34	29	27	18
1932	27	26	18	35	41	58	60	58	48	35	26	23	18
1933	27	18	22	36	47	45	56	56	50	35	16	16	16
1934	10	8	20	36	45	--	--	56	62	30	26	18	8
1935	13	18	26	36	44	50	57	54	44	35	27	12	12
1936	10	7	28	30	40	54	58	59	48	31	20	23	7
1937	35	20	15	31	37	55	60	60	44	34	20	18	15
1938	18	29	25	35	47	54	56	58	47	38	21	22	18
1939	18	20	25	32	40	62	59	60	54	35	24	19	18
1940	6	16	18	30	42	52	55	56	43	30	24	18	6
1941	18	18	20	34	36	54	63	50	49	38	26	22	18
1942	9	15	31	31	50	62	64	52	45	33	23	7	7
1943	19	11	15	27	31	60	59	--	40	35	25	14	11
1944	8	21	25	30	45	54	56	50	47	33	26	--	--
1945	--	17	35	--	46	47	59	55	64	35	27	19	--

Summary of Period 1921-45

Max.	35	29	35	40	50	62	66	60	64	40	29	27	18
Min.	6	7	15	21	31	45	52	50	40	28	16	7	6
Mean	17	19	24	32	42	53	59	56	49	34	24	19	13

Summary of Record

Max.	35	29	35	40	50	62	66	69	64	43	35	27	22
Min.	6	0	15	21	31	45	50	50	40	28	16	5	0
Mean	17	17	24	32	42	52	59	57	48	35	25	19	13



Precipitation at Henderson, Vance County, North Carolina:  
Monthly and annual amounts (in inches and hundredths)

Henderson, Vance County.- Elevation, 435 feet

Year	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Annual
1893	2.80	5.90	1.60	1.30	5.20	2.71	4.07	6.96	4.52	6.39	2.07	4.18	47.70
1894	4.15	6.52	1.90	2.68	5.08	2.42	3.77	4.78	5.55	6.90	1.46	3.10	48.31
1895	7.53	3.05	2.85	14.60	3.12	3.93	8.42	2.95	1.10	1.95	4.82	2.62	56.94
1896	3.75	6.20	3.90	1.83	5.66	5.60	8.16	1.56	4.42	1.37	2.04	2.85	47.34
1897	2.25	4.92	5.83	3.25	3.42	4.11	6.82	2.72	1.21	4.65	3.34	3.58	46.10
1898	2.14	.87	4.40	3.58	7.64	4.11	5.68	7.74	1.72	2.66	3.40	2.39	46.33
1899	4.36	8.47	6.69	2.20	5.01	4.33	8.39	1.36	4.49	5.72	1.04	2.93	54.99
1900	3.35	6.25	5.57	3.38	2.67	4.81	4.95	3.53	2.70	.88	5.30	2.98	46.37
1901	2.20	.70	4.69	6.10	8.37	3.86	6.40	9.22	7.84	3.40	1.29	5.62	59.69
1902	1.10	6.80	2.89	2.33	2.86	4.77	2.31	3.73	6.05	1.65	3.77	3.15	41.41
1903	3.01	5.60	10.74	4.87	1.50	3.77	2.82	11.26	2.34	3.51	1.49	1.85	52.76
1904	2.71	3.98	2.86	.94	2.40	3.17	8.85	4.06	3.73	2.60	4.55	4.53	44.38
1905	2.14	5.14	3.41	5.71	5.72	4.57	3.89	12.72	2.11	1.98	.45	9.61	57.45
1906	2.94	3.84	4.20	1.66	2.95	5.91	7.55	16.00	2.04	2.87	.84	2.89	56.39
1907	.95	4.50	4.31	4.05	2.61	8.69	4.83	5.21	4.67	.87	5.38	4.72	50.79
1908	6.54	5.39	6.22	3.53	2.12	2.92	4.65	9.34	2.00	4.56	1.62	5.53	54.42
1909	1.34	2.89	2.27	2.74	2.79	7.42	4.99	6.87	2.53	1.22	.34	1.65	37.05
1910	2.29	2.10	1.79	6.96	2.90	8.54	3.38	6.22	1.49	4.93	1.25	4.84	46.69
1911	3.28	2.99	3.45	3.43	2.94	2.66	8.11	7.97	1.05	4.14	5.28	4.62	49.92
1912	3.31	2.29	7.42	3.84	7.12	3.95	1.90	1.29	4.05	2.14	2.45	3.92	43.68
1913	3.93	2.06	3.75	2.95	2.67	3.86	2.92	3.88	6.76	6.73	1.59	4.04	45.14
1914	3.01	5.28	2.53	2.30	1.67	1.92	7.13	5.77	2.91	2.37	4.25	4.41	43.55
1915	6.03	3.53	1.64	2.66	5.98	1.83	3.03	3.39	2.37	2.53	2.08	3.60	38.67
1916	1.72	3.79	1.72	2.96	2.36	6.10	6.18	5.83	1.74	2.18	1.88	2.74	39.20
1917	4.44	2.29	7.27	3.17	4.54	4.21	9.54	3.72	3.84	2.73	1.07	2.26	49.08
1918	5.28	.67	2.90	8.61	6.79	3.39	2.24	3.78	3.86	1.40	1.79	4.59	45.30
1919	4.06	2.55	2.97	4.27	5.79	4.01	13.58	4.75	.59	2.53	.44	2.19	47.73
1920	3.14	2.93	2.62	3.98	2.28	6.61	3.88	4.95	3.25	1.26	7.05	5.50	47.45
1921	3.20	2.72	2.53	1.23	3.17	3.40	2.37	.62	2.81	1.42	2.70	2.62	28.79
1922	5.09	4.94	6.71	2.55	5.88	6.91	8.88	5.79	.05	7.01	.34	3.80	57.95
1923	3.42	3.16	6.60	6.02	1.06	2.51	7.23	4.49	4.05	1.27	2.24	2.04	44.09
1924	4.09	3.56	3.60	4.48	8.28	6.30	4.72	1.79	*11.90	*1.50	*1.40	*2.20	53.82
1925	5.60	3.19	1.84	2.25	3.89	3.61	1.64	4.78	4.68	6.38	2.01	2.66	42.53
1926	3.87	4.02	2.97	2.03	1.23	2.75	9.13	1.89	2.51	2.14	4.16	5.70	42.40
1927	1.11	3.60	3.71	3.38	1.58	3.91	4.53	4.66	2.10	5.07	1.56	5.11	40.32
1928	1.79	3.05	2.94	6.84	2.60	6.38	3.15	*4.60	*11.56	.72	.82	1.02	45.47
1929	1.69	6.80	5.08	3.88	5.20	4.39	5.64	7.91	2.48	9.51	4.36	1.89	58.83
1930	3.56	1.20	1.66	3.09	2.76	6.88	2.71	.23	2.96	3.05	1.79	3.66	33.65
1931	1.84	1.33	3.51	3.48	5.09	3.37	2.37	8.91	.89	2.73	.35	4.27	38.14
1932	4.37	2.20	5.78	2.37	2.15	3.16	2.02	1.28	1.06	6.77	4.65	3.88	39.69
1933	4.12	3.58	2.28	6.53	3.86	3.08	3.57	5.28	.93	.64	.75	2.20	36.32
1934	2.07	5.23	8.50	6.11	6.30	3.05	10.21	2.75	4.05	.71	9.55	1.58	60.11
1935	4.65	2.04	4.79	6.26	2.75	*1.20	*7.24	2.93	5.40	1.47	2.06	3.19	43.98
1936	8.09	4.69	4.64	5.60	.37	5.00	7.54	3.11	3.90	3.88	1.77	7.07	55.66
1937	6.47	2.80	1.68	6.75	.26	4.26	4.41	9.82	2.05	4.79	1.47	1.28	46.04
1938	4.50	1.19	3.82	2.60	4.87	8.24	6.85	2.77	4.75	1.31	2.67	2.55	46.12
1939	2.83	6.94	5.43	3.63	3.89	2.89	6.52	8.56	.56	2.96	1.73	2.50	48.44
1940	2.63	2.54	3.22	4.45	5.46	2.15	2.23	8.77	1.05	.38	5.32	2.34	40.54
1941	1.71	1.20	3.47	2.83	.91	8.33	7.51	2.54	1.22	.51	.33	4.53	35.09
1942	2.08	3.14	3.89	.70	3.45	7.51	6.40	8.61	3.20	6.05	2.35	3.42	50.80
1943	2.69	1.78	7.44	2.53	1.45	3.82	2.85	.52	2.34	1.21	1.63	3.06	31.32
1944	3.62	3.99	6.04	3.56	5.46	2.54	3.99	4.93	7.95	2.61	3.57	1.38	49.64
1945	2.10	3.13	1.48	2.72	5.92	1.45	18.25	6.53	8.25	1.59	*2.02	4.91	*58.35

\*Interpolated



Precipitation at Henderson, Vance County, North Carolina:  
Monthly and annual amounts (in inches and hundredths)

Summary of Period 1921-45

	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Annual
Max.	8.09	6.94	8.50	6.84	8.28	8.33	18.25	9.82	11.90	9.51	9.55	7.07	60.11
Min.	1.11	1.19	1.48	.70	.26	1.20	1.64	.23	.05	.38	.33	1.02	28.79
Mean	3.49	3.28	4.14	3.83	3.51	4.28	5.68	4.56	3.71	3.03	2.46	3.15	45.14

Summary of Record

Max.	8.09	8.47	10.74	14.60	8.37	8.69	18.25	16.00	11.90	9.51	9.55	9.61	60.11
Min.	.95	.67	1.48	.70	.26	1.20	1.64	.23	.05	.38	.33	1.02	28.79
Mean	3.41	3.65	4.08	3.88	3.81	4.36	5.67	5.20	3.46	3.05	2.53	3.50	46.61

Mean Temperature at Henderson

Year	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Annual
1893						75.4	81.2	76.2	70.6	59.8	48.4	43.7	----
1894	42.8	43.0	55.4	57.2	69.2	76.2	78.6	75.6	73.2	59.4	45.6	41.4	59.8
1895	37.0	30.2	47.8	56.4	64.7	77.0	76.6	78.2	76.8	56.2	51.4	42.4	57.8
1896	38.4	42.4	46.6	62.9	73.6	74.5	79.5	79.6	71.8	57.9	54.4	39.6	60.1
1897	35.9	44.8	51.0	58.0	66.1	75.2	78.2	77.6	72.9	61.9	51.6	42.2	59.6
1898	42.8	39.0	53.8	52.9	68.3	75.0	78.3	78.0	75.0	61.4	46.3	41.6	59.4
1899	38.6	34.9	48.8	55.8	68.4	76.1	77.0	77.9	69.7	61.1	51.0	40.4	58.3
1900	40.6	38.5	45.2	56.8	67.2	75.3	79.7	81.2	74.6	64.8	53.9	42.2	60.0
1901	39.6	37.4	50.8	52.3	66.7	74.7	79.6	77.0	70.5	59.4	42.6	39.0	57.5
1902	36.4	34.2	50.1	55.7	69.8	75.6	79.8	76.1	69.2	61.0	55.4	42.1	58.8
1903	39.8	45.2	57.0	57.9	67.6	71.0	78.9	77.5	68.8	58.8	46.6	36.0	58.8
1904	35.8	35.8	49.6	54.8	66.0	73.9	75.8	74.7	69.4	57.4	47.2	37.2	56.5
1905	34.8	32.6	51.4	58.1	68.9	74.2	77.6	75.6	73.2	61.6	50.2	39.8	58.2
1906	43.8	38.3	42.8	59.8	67.3	74.8	75.7	77.8	73.8	57.9	50.9	42.6	58.8
1907	46.4	37.8	54.3	47.3	----	68.4	77.7	74.8	72.6	56.6	47.6	----	----
1908	38.0	36.6	54.6	60.9	66.4	73.0	77.3	73.6	67.4	58.2	50.8	42.4	58.3
1909	44.4	48.7	47.7	59.2	65.6	75.8	74.8	73.2	67.2	55.6	53.2	37.3	58.6
1910	39.8	38.8	56.1	59.4	64.6	71.4	78.0	74.9	71.6	61.0	43.4	36.2	57.9
1911	44.0	43.8	47.2	54.2	69.4	76.6	78.2	77.4	74.3	60.6	46.3	45.0	59.8
1912	32.0	37.3	47.8	61.4	68.0	72.7	77.6	77.8	74.4	60.8	49.0	44.6	58.6
1913	48.5	42.4	53.2	59.4	69.0	73.7	79.8	75.8	68.5	59.6	49.8	43.6	60.3
1914	43.0	36.6	44.4	58.4	68.5	77.8	76.8	76.6	67.3	61.2	49.5	36.5	58.0
1915	39.6	44.5	42.4	60.0	66.6	72.4	78.2	77.2	73.7	62.0	51.7	39.6	59.0
1916	46.8	41.1	49.9	58.2	72.4	75.0	78.0	77.2	68.4	60.0	50.6	41.2	59.9
1917	43.0	42.0	48.2	60.6	64.0	75.4	77.4	76.4	66.3	56.0	47.2	31.6	57.3
1918	30.2	46.8	55.1	56.8	72.1	73.4	75.2	79.2	66.2	63.3	49.3	44.5	59.3
1919	43.4	42.0	52.0	58.9	68.2	74.5	77.8	77.4	73.2	69.2	51.7	38.8	60.6
1920	38.8	38.2	50.8	58.0	64.0	75.0	77.2	76.2	74.2	65.3	49.8	42.8	59.2
1921	42.4	45.1	60.5	62.8	65.4	77.1	80.6	78.0	79.6	61.9	54.6	45.1	62.8
1922	38.2	47.4	53.0	62.4	70.2	77.5	79.0	75.8	73.8	63.8	51.8	46.2	61.6
1923	44.2	41.0	52.2	59.0	66.8	77.8	78.3	77.5	73.6	60.6	49.2	50.7	60.9
1924	41.0	40.8	48.4	57.8	66.4	76.5	76.5	79.0	*66.3	*58.2	*49.1	*41.4	*58.5
1925	41.0	49.6	52.4	61.2	63.8	79.3	80.8	75.9	77.6	58.6	48.0	41.0	60.8
1926	39.7	45.6	45.0	57.6	66.8	73.8	79.8	80.8	74.6	62.6	47.5	41.9	59.6
1927	40.6	50.1	51.5	57.5	69.5	71.2	76.8	74.2	72.8	62.0	54.4	42.8	60.3
1928	42.1	42.6	50.0	55.8	66.1	75.2	79.9	*78.7	*66.6	61.2	48.6	*41.7	*59.0
1929	41.8	39.5	54.0	60.8	66.9	73.0	75.2	74.6	69.7	57.6	52.4	42.6	59.0
1930	42.4	46.1	47.7	57.1	69.4	73.2	79.8	75.6	76.6	55.9	48.3	36.7	59.1
1931	39.4	43.0	43.6	55.7	65.2	75.0	81.0	75.4	74.7	61.6	54.6	48.8	59.8
1932	48.6	47.9	45.2	55.2	65.9	75.1	79.4	76.8	70.2	60.0	47.7	43.5	59.6
1933	46.6	42.9	48.6	58.0	70.6	76.6	76.4	75.4	75.0	60.8	49.6	46.0	60.5
1934	44.2	33.4	47.0	60.0	68.3	*78.2	81.5	78.4	*73.2	57.2	52.6	42.0	*59.7
1935	40.0	43.2	56.2	56.5	65.4	*76.3	*78.3	76.8	69.7	60.2	52.8	33.5	*59.1

\*Interpolated

# Mean Temperature at Henderson

Year	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Annual
1936	35.9	37.4	53.2	56.0	69.4	74.6	78.6	78.0	71.6	62.0	48.2	42.9	59.0
1937	49.6	41.9	46.9	59.3	67.0	76.3	77.5	77.8	67.0	57.4	47.0	40.4	59.0
1938	40.1	47.8	55.6	60.2	67.6	71.7	75.8	78.8	70.1	58.7	52.6	41.6	60.0
1939	43.1	48.6	52.2	58.8	67.4	77.1	75.6	75.8	71.0	60.5	46.6	42.6	59.9
1940	28.8	42.8	47.4	56.6	66.3	76.7	77.2	77.1	68.6	59.3	50.0	46.2	58.1
1941	39.4	37.2	43.2	61.2	68.6	75.1	79.0	77.8	74.0	67.6	50.9	44.8	59.9
1942	36.6	38.5	52.4	60.6	70.0	76.7	79.2	76.0	71.8	61.6	52.1	39.7	59.6
1943	42.7	44.2	48.6	57.6	70.0	79.3	79.3	79.0	68.6	58.5	48.8	40.6	59.8
1944	39.9	44.6	48.4	58.6	72.0	77.9	77.3	75.6	72.3	59.4	48.6	37.2	59.3
1945	39.0	43.8	60.6	63.6	64.8	76.0	77.9	75.5	74.6	59.4	*52.6	35.3	*60.3
Summary of Period 1921-45													
Max.	49.6	50.1	60.6	63.6	72.0	79.3	81.5	80.8	79.6	63.8	54.6	50.7	62.8
Min.	28.8	33.4	43.2	55.2	63.8	71.2	75.2	74.2	66.3	55.9	46.6	33.5	58.1
Mean	41.1	43.4	50.6	58.8	67.6	75.9	78.4	77.0	72.1	60.3	50.3	42.2	59.8
Summary of Record													
Max.	49.6	50.1	60.6	63.6	73.6	79.3	81.5	81.2	79.6	69.2	55.4	50.7	62.3
Min.	28.8	30.2	42.4	47.3	63.8	68.4	74.8	73.2	66.2	55.6	42.6	31.6	56.5
Mean	40.6	41.5	50.3	58.1	67.7	75.1	78.1	76.9	71.7	60.3	49.9	41.3	59.3

## Highest Temperature at Henderson

Year	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Highest
1893						94	101	96	94	87	76	72	--
1894	67	70	88	88	94	99	97	97	96	85	75	73	99
1895	68	72	87	85	98	100	98	96	103	80	79	71	103
1896	67	67	79	98	97	94	100	104	101	80	79	69	104
1897	67	73	80	90	87	98	98	100	100	92	74	68	100
1898	74	68	86	85	93	98	96	93	90	86	71	67	98
1899	69	68	72	86	91	97	94	96	101	82	76	69	101
1900	67	67	76	84	93	92	100	99	99	89	80	68	100
1901	72	70	73	81	89	92	98	91	92	84	74	73	98
1902	65	67	76	85	92	96	99	97	90	80	78	67	99
1903	64	70	75	84	93	91	97	97	88	83	78	58	97
1904	67	74	71	82	89	94	94	90	88	85	68	65	94
1905	60	53	78	88	88	94	93	95	88	86	75	62	95
1906	74	68	67	87	91	93	93	90	89	80	79	70	93
1907	77	64	92	76	--	88	93	88	91	82	75	65	93
1908	60	62	82	85	88	94	95	91	84	82	74	74	95
1909	72	73	77	88	87	91	94	93	86	78	74	68	94
1910	70	71	89	85	87	89	91	91	90	84	68	63	91
1911	73	71	75	81	91	98	97	98	87	90	72	68	98
1912	60	65	81	82	88	92	91	97	98	87	79	73	98
1913	73	74	81	86	93	96	100	95	89	82	76	65	100
1914	71	65	77	90	95	98	99	94	92	82	74	66	99
1915	64	69	65	91	89	92	99	97	95	82	80	69	99
1916	74	70	82	89	98	95	94	93	92	86	77	69	93
1917	67	77	79	91	95	97	97	96	88	81	72	60	97
1918	61	75	82	84	94	98	94	103	89	84	75	73	103
1919	67	67	76	85	92	94	95	96	98	97	85	72	98
1920	70	62	83	90	88	97	96	94	94	90	79	66	97
1921	74	74	88	89	92	101	101	100	102	87	78	74	102
1922	65	76	84	92	91	95	97	93	97	93	77	72	97
1923	69	72	81	85	88	97	98	98	95	85	72	74	98
1924	67	70	78	87	90	101	96	101	--	--	--	--	101
1925	67	78	87	96	96	100	101	102	100	90	72	68	102

\*Interpolated



Highest Temperature at Henderson (continued)

Year	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Highest
1926	71	71	82	86	94	101	106	103	96	95	77	70	106
1927	72	79	85	93	95	98	99	95	98	94	82	81	99
1928	78	67	81	82	95	96	99	--	93	87	79	68	--
1929	69	67	87	91	88	94	93	91	90	80	81	73	94
1930	75	82	74	92	91	97	100	100	100	84	74	63	100
1931	70	65	65	84	89	101	101	95	98	93	80	78	101
1932	79	80	77	84	91	95	102	104	103	83	70	70	104
1933	74	74	80	84	95	102	99	94	96	89	80	70	102
1934	71	68	77	86	93	98	100	95	91	87	81	70	100
1935	74	73	85	86	88	--	--	99	93	85	77	67	--
1936	69	78	83	88	95	100	100	95	95	84	80	68	100
1937	76	75	77	90	94	96	99	95	92	88	74	71	99
1938	67	76	86	88	95	90	93	98	95	87	80	70	98
1939	71	76	85	87	92	100	93	96	99	95	74	76	100
1940	62	69	77	83	95	96	105	97	94	86	78	71	105
1941	68	60	72	91	104	96	97	99	98	99	79	78	104
1942	68	65	79	89	92	97	99	100	96	83	81	74	100
1943	79	73	83	88	91	100	98	103	97	85	80	75	103
1944	78	75	84	86	93	99	95	96	96	89	78	65	99
1945	62	75	92	89	90	102	99	93	99	84	--	61	102
Summary of Period 1921-45													
Max.	79	82	92	96	104	102	106	104	103	99	82	81	106
Min.	62	60	72	82	88	90	93	91	90	80	70	61	94
Mean	71	73	81	88	93	98	99	98	96	88	78	71	101
Summary of Record													
Max.	79	82	92	98	104	102	106	104	103	99	85	81	106
Min.	60	53	65	76	87	88	91	88	84	78	68	58	91
Mean	70	71	80	87	90	96	97	96	94	86	77	69	99

Lowest Temperature at Henderson

Year	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Lowest
1893						56	60	60	42	29	18	18	
1894	21	17	19	32	45	43	60	58	52	33	21	8	8
1895	4	1	23	30	39	51	59	57	46	32	25	17	1
1896	12	7	21	30	46	59	64	54	42	34	28	12	7
1897	8	22	29	28	41	55	62	62	48	42	24	18	8
1898	14	11	27	26	38	54	58	65	46	32	23	13	11
1899	11	-2	18	29	43	50	55	63	43	34	31	6	-2
1900	9	9	22	28	43	54	58	64	50	37	27	19	9
1901	19	12	13	34	52	54	64	64	48	36	19	7	7
1902	15	15	19	31	44	55	62	56	46	36	30	16	15
1903	16	15	39	29	40	48	58	64	44	33	17	13	13
1904	12	11	23	29	49	48	61	58	40	32	27	18	11
1905	13	8	24	30	48	52	63	53	55	39	22	21	8
1906	22	12	23	32	37	56	62	67	53	30	26	14	12
1907	11	13	26	26	40	49	62	59	47	32	27	22	11
1908	16	14	20	31	37	56	60	53	43	33	28	21	14
1909	15	17	27	29	41	59	51	55	44	31	21	12	12
1910	19	15	25	36	39	49	57	62	47	28	25	17	15
1911	23	19	21	31	40	55	57	56	49	38	24	23	19
1912	3	14	21	35	47	46	62	53	55	38	23	20	3
1913	26	17	21	36	39	46	58	57	45	30	24	21	17
1914	15	10	18	28	41	55	52	60	44	29	19	11	10
1915	21	21	25	27	50	50	59	61	42	35	27	21	21



Lowest Temperature at Henderson  
(continued)

Year	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Lowest
1916	13	8	21	32	51	53	60	61	41	35	22	18	8
1917	15	2	23	21	41	51	63	57	42	27	20	0	0
1918	2	10	26	32	39	53	55	53	40	37	29	23	2
1919	13	20	31	27	47	51	50	57	46	43	24	14	13
1920	6	14	14	30	38	53	52	55	51	34	19	22	6
1921	15	23	27	33	42	49	60	53	61	35	27	21	15
1922	16	7	26	34	44	58	60	54	50	39	23	20	7
1923	23	17	22	20	38	54	61	53	48	39	28	22	17
1924	6	19	25	28	45	55	58	54	--	--	--	--	--
1925	12	21	14	33	37	51	54	52	54	29	22	6	6
1926	8	18	8	28	37	51	54	62	54	28	20	10	8
1927	4	24	10	29	41	51	53	52	42	37	22	13	4
1928	6	18	24	26	38	49	60	--	--	28	15	--	--
1929	15	12	19	31	42	44	53	52	40	33	13	9	9
1930	8	18	19	28	41	41	58	48	51	25	12	6	6
1931	2	18	21	29	35	44	62	54	39	30	22	18	2
1932	23	19	15	28	37	49	51	51	42	31	18	9	9
1933	17	11	16	29	43	40	53	54	41	38	14	13	11
1934	5	6	13	31	38	--	64	59	--	27	25	17	5
1935	5	14	20	35	39	--	--	51	42	31	19	0	0
1936	-7	-6	27	27	42	44	58	55	44	26	15	18	-7
1937	27	16	4	27	34	53	55	55	43	29	15	11	4
1938	10	22	22	30	45	39	54	56	41	32	16	12	10
1939	13	11	20	27	32	53	56	50	40	27	25	12	11
1940	-8	10	14	27	40	52	52	58	44	27	22	11	-8
1941	14	14	18	33	33	50	61	49	43	34	19	17	14
1942	-4	12	22	26	42	50	61	52	36	29	21	5	-4
1943	16	5	7	24	36	63	60	51	40	26	21	6	5
1944	-2	12	21	24	38	53	54	54	47	25	24	13	-2
1945	14	13	28	27	34	41	60	51	55	30	--	9	9
Summary of Period 1921-45													
Max.	27	24	28	35	45	63	64	62	61	39	28	22	17
Min.	-8	-6	4	20	32	39	51	48	36	25	12	0	-8
Mean	7.8	14	18	29	39	49	57	53	45	31	20	12	5.7
Summary of Record													
Max.	27	24	39	36	52	63	64	67	61	43	31	23	21
Min.	-8	-6	4	20	32	39	50	48	36	25	12	0	-8
Mean	11	13	21	29	41	51	58	56	46	32	22	14	7.8

Precipitation at Reidsville, Rockingham County, North Carolina:  
Monthly and annual amounts (in inches and hundredths)

Reidsville, Rockingham County.- Elevation, 828 feet

Year	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Annual
1901											0.89	5.73	
1902	2.07	4.54	4.58	2.33	2.81	4.85	1.60	2.45	2.32	4.43	2.73	4.49	39.20
1903	4.38	6.59	6.56	5.01	1.86	8.39	3.41	2.60	3.45	2.24	2.10	2.03	48.62
1904	2.39	2.85	3.16	1.45	3.26	5.97	3.62	4.83	4.68	.92	1.65	3.51	38.29
1905	3.14	4.78	1.89	4.59	8.20	2.43	7.28	5.42	.99	2.28	.51	7.50	49.01
1906	6.68	2.02	4.37	1.78	4.08	6.47	14.27	8.18	1.50	3.59	.53	2.88	56.35
1907	.34	2.54	2.40	5.00	1.69	7.70	4.55	4.12	6.19	1.10	5.51	5.11	46.25
1908	4.18	3.83	3.74	1.15	3.71	5.04	3.63	10.30	2.54	4.39	2.12	4.60	49.23
1909	1.69	3.25	2.94	1.75	6.34	4.00	3.19	8.34	3.01	1.85	.69	2.55	39.60
1910	4.05	2.54	1.84	4.41	2.38	7.21	4.56	2.39	3.15	4.37	1.09	2.97	40.96
1911	3.52	1.66	3.84	4.57	1.00	1.69	1.80	7.85	2.35	4.69	3.73	3.91	40.61
1912	2.60	4.01	9.79	3.85	3.02	4.63	2.02	1.56	4.83	1.51	3.23	1.37	42.42
1913	3.43	2.27	5.57	3.00	5.78	4.30	5.81	6.67	5.97	4.49	3.50	3.64	54.43
1914	2.55	4.33	3.38	3.79	1.85	1.51	3.12	1.21	1.61	3.53	2.29	7.23	36.40
1915	3.83	3.00	1.71	1.53	4.17	3.37	1.65	11.23	1.33	5.21	1.78	3.40	42.21
1916	1.27	4.72	1.64	2.26	6.99	6.68	5.53	4.98	1.69	2.43	.99	2.94	42.12
1917	4.31	2.09	7.36	2.19	3.00	3.34	4.17	3.27	4.89	2.75	1.06	2.49	40.92
1918	5.92	.51	3.68	6.78	3.71	3.30	2.63	4.43	4.30	1.57	2.10	4.46	43.39
1919	4.61	3.38	4.03	4.55	6.43	3.29	6.52	2.26	.85	4.18	1.65	1.55	43.30
1920	3.24	4.02	4.59	4.74	2.32	5.10	3.34	7.97	2.11	.57	6.07	5.75	49.82
1921	5.02	3.68	1.40	3.88	3.88	3.60	1.86	.81	3.84	1.74	3.07	1.22	34.00
1922	4.06	4.39	5.69	3.14	4.53	12.57	7.30	3.21	.94	3.48	.25	3.70	53.26
1923	3.83	3.17	5.88	4.55	2.65	1.23	5.07	6.16	3.90	1.15	2.58	2.81	42.98
1924	3.90	3.16	3.65	3.18	6.05	2.67	3.47	1.70	6.93	1.14	1.82	3.70	41.37
1925	6.10	1.24	3.19	2.10	3.03	1.80	1.43	5.31	.54	3.89	2.17	2.42	33.22
1926	4.77	3.97	2.87	1.51	1.35	1.81	9.37	1.77	.54	3.08	4.09	4.59	39.72
1927	1.19	3.37	2.21	3.25	1.84	3.63	7.21	4.61	1.08	5.16	1.79	4.96	40.30
1928	1.87	2.41	3.28	4.93	1.69	5.28	3.72	8.20	9.38	1.06	.52	.95	43.29
1929	1.64	5.73	3.52	5.25	3.30	7.65	5.95	7.22	3.08	7.51	3.03	2.81	56.69
1930	3.51	1.36	1.81	1.50	2.61	4.80	5.57	2.04	3.95	1.69	3.27	4.69	36.80
1931	1.63	1.29	2.76	4.43	4.91	0.87	4.08	10.97	1.18	0.38	0.31	4.72	37.53
1932	5.15	2.56	5.14	2.59	2.90	5.54	3.47	1.23	4.21	7.33	4.87	5.54	50.53
1933	2.87	3.19	2.79	3.70	4.21	1.96	3.54	4.13	2.65	1.08	0.97	2.39	33.48
1934	0.80	3.42	4.79	4.27	5.44	2.20	5.28	3.19	7.46	1.28	3.88	3.21	45.22
1935	4.30	2.28	5.02	4.17	3.44	3.05	7.36	3.83	6.17	2.09	3.63	2.40	47.74
1936	9.04	4.31	5.57	5.02	0.15	3.94	4.16	1.21	3.71	3.92	1.70	3.46	46.19
1937	8.05	3.86	2.10	5.05	4.24	3.66	3.69	9.45	4.05	8.77	2.22	1.35	56.49
1938	2.62	1.96	1.97	2.67	3.53	6.28	8.28	1.56	2.03	1.11	5.64	2.32	39.97
1939	2.55	5.11	4.22	3.74	2.90	3.41	6.04	7.67	0.19	2.42	2.53	2.52	43.30
1940	2.76	2.51	2.90	2.95	4.59	3.38	4.02	7.22	0.98	1.06	6.09	2.20	40.66
1941	1.49	1.12	2.36	2.78	3.31	2.38	5.31	1.10	2.83	0.39	0.77	3.17	27.01
1942	2.50	2.78	4.80	0.55	5.78	5.19	3.34	6.64	3.51	5.52	1.34	3.86	45.81
1943	3.39	2.70	5.01	3.92	3.27	6.27	5.30	3.75	3.59	1.43	1.12	2.91	42.66
1944	3.31	5.54	7.09	4.99	3.30	2.35	5.43	1.91	9.70	2.93	3.15	2.54	52.24
1945	2.34	4.29	2.53	3.44	3.53	1.13	5.11	0.67	12.34	1.68	3.72	5.76	46.54
Summary of Period 1921-45													
Max.	9.04	5.73	7.09	5.25	6.05	12.57	9.37	10.97	12.34	8.77	6.09	5.76	56.69
Min.	0.80	1.12	1.40	0.55	0.15	0.87	1.43	0.67	0.19	0.38	0.25	0.95	27.01
Mean	3.55	3.18	3.70	3.50	3.46	3.87	5.01	4.22	3.95	2.85	2.58	3.21	43.08
Summary of Record													
Max.	9.04	6.59	9.79	6.78	8.20	12.57	14.27	11.23	12.34	8.77	6.09	7.50	56.69
Min.	0.34	0.51	1.40	0.55	0.15	0.87	1.43	0.67	0.19	0.38	0.25	0.95	27.01
Mean	3.47	3.23	3.86	3.46	3.61	4.23	4.73	4.67	3.56	2.90	2.42	3.52	43.64



## Mean Temperature at Reidsville

Year	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Annual
1902	36.2	34.4	49.4	55.8	69.8	74.2	78.4	74.6	69.5	61.4	56.4	40.0	58.5
1903	38.0	43.8	54.8	56.8	67.0	69.6	77.6	76.4	68.5	-----	-----	35.8	-----
1904	34.6	35.4	48.2	53.6	66.2	72.6	76.2	74.8	70.8	58.6	48.0	38.2	56.4
1905	34.2	31.6	51.4	58.2	68.8	74.7	77.0	75.0	72.1	59.4	49.3	39.8	57.6
1906	42.0	40.6	43.6	61.5	66.8	75.0	76.2	78.6	74.6	56.8	48.7	41.6	58.8
1907	47.6	39.2	54.8	51.9	65.2	70.6	79.4	76.6	73.2	57.4	46.0	40.8	58.6
1908	37.6	35.6	54.7	60.7	66.6	72.0	77.0	74.0	67.4	57.4	50.8	41.6	58.0
1909	43.8	47.3	46.7	58.0	64.8	76.0	74.7	73.6	68.5	57.6	55.4	37.8	58.7
1910	40.1	39.2	57.2	60.6	65.9	70.8	78.2	75.8	73.4	62.8	44.9	35.9	58.7
1911	44.0	45.4	47.8	54.2	70.4	78.1	80.0	77.0	75.0	61.5	-----	44.0	-----
1912	32.2	37.0	47.2	61.6	68.8	74.1	-----	78.8	75.2	62.1	50.0	44.0	-----
1913	47.4	42.5	52.8	58.8	69.2	73.8	79.2	76.0	67.7	59.6	49.8	43.8	60.0
1914	42.8	37.0	44.0	58.4	68.8	79.3	77.9	73.4	68.6	61.3	48.6	37.1	58.5
1915	39.3	44.3	41.5	60.5	66.7	72.6	78.1	77.8	71.8	62.4	51.5	39.1	58.8
1916	47.3	41.6	48.0	57.0	70.7	72.3	76.6	76.6	68.9	60.2	50.2	40.5	59.2
1917	42.0	40.8	47.7	60.4	63.2	73.8	77.0	76.4	66.6	-----	46.8	31.9	-----
1918	29.8	45.8	54.4	55.4	71.5	73.1	74.4	78.6	65.8	63.2	49.0	44.7	58.8
1919	43.2	40.8	50.4	58.8	67.3	74.4	78.0	75.8	72.6	67.0	51.2	39.1	59.9
1920	38.2	37.6	48.9	56.2	63.0	72.8	76.8	74.9	72.0	62.4	48.0	41.4	57.5
1921	41.0	44.6	58.9	60.6	65.6	76.4	79.4	77.0	77.8	59.8	52.8	44.6	61.5
1922	37.3	45.3	51.0	60.1	67.6	75.5	77.7	74.4	72.6	61.5	50.6	44.3	59.8
1923	42.3	40.2	49.2	57.6	65.4	76.0	77.7	76.9	71.8	60.1	47.7	49.5	59.5
1924	39.2	39.2	47.0	56.6	63.9	75.3	75.2	78.4	67.2	61.0	51.0	41.6	58.0
1925	39.8	49.4	51.6	62.5	62.8	78.7	80.9	75.0	77.3	56.7	46.8	41.2	60.2
1926	39.6	45.4	43.9	56.9	68.6	73.1	78.6	79.0	75.0	61.4	46.2	41.2	59.1
1927	40.2	49.6	52.5	58.1	67.3	71.4	76.2	73.2	74.4	63.0	54.0	43.0	60.2
1928	41.0	41.4	49.8	55.0	65.8	73.2	79.4	79.0	67.0	62.7	51.0	42.0	58.9
1929	40.0	40.0	54.5	61.8	67.0	72.4	75.8	74.4	70.1	57.4	51.2	42.9	59.0
1930	42.3	48.1	48.1	59.0	70.1	73.3	79.8	76.0	76.0	57.4	47.0	36.6	59.5
1931	41.8	44.0	44.4	56.9	63.9	75.0	81.5	75.4	76.6	63.4	56.8	49.4	60.8
1932	49.6	49.6	47.0	58.8	66.4	75.1	79.6	78.0	71.6	61.2	47.2	44.6	60.7
1933	47.6	43.2	49.4	58.7	72.1	77.6	78.0	76.8	76.6	60.8	49.3	47.0	61.4
1934	43.8	33.6	45.6	60.1	67.8	77.8	80.6	77.6	72.2	59.2	52.2	41.2	59.3
1935	39.2	42.0	55.2	56.6	65.6	75.0	77.4	76.6	69.8	61.8	54.2	35.1	59.0
1936	35.4	37.4	53.2	55.2	70.2	75.2	78.8	78.6	72.8	62.0	48.4	42.2	59.1
1937	47.2	41.8	47.2	57.6	66.8	76.2	76.3	77.2	67.2	56.7	47.2	40.7	58.5
1938	39.6	46.5	55.0	59.5	67.7	71.9	76.6	78.5	70.8	60.3	52.5	41.2	60.6
1939	43.3	46.3	52.7	57.5	68.1	77.8	76.6	76.6	74.2	63.0	47.9	43.4	60.6
1940	29.2	41.6	46.2	57.2	66.7	76.4	76.2	76.0	69.2	60.1	50.2	46.0	57.9
1941	39.3	37.3	44.3	62.1	69.7	74.6	79.0	78.0	73.8	67.8	51.9	45.4	60.3
1942	38.9	38.6	52.0	62.3	69.3	76.4	79.5	76.2	71.6	61.8	51.6	39.8	59.8
1943	42.8	44.5	48.4	57.4	69.7	79.6	77.6	78.2	68.0	59.0	49.6	42.0	59.7
1944	41.5	44.4	48.0	58.4	71.7	77.2	76.7	76.3	71.7	60.2	48.8	37.2	59.3
1945	39.2	43.5	60.2	62.5	64.7	76.4	78.4	77.5	74.6	60.0	51.6	36.0	60.4
Summary of Period 1921-45													
Max.	49.6	49.6	60.2	62.5	72.1	79.6	81.5	79.0	77.8	67.8	56.8	49.5	61.5
Min.	29.2	33.6	43.9	55.0	62.8	71.4	75.2	73.2	67.0	56.7	46.2	35.1	57.9
Mean	40.8	43.1	50.2	58.8	67.4	75.5	78.1	76.8	72.3	60.7	50.3	42.3	59.7
Summary of Record													
Max.	49.6	49.6	60.2	62.5	72.1	79.6	81.5	79.0	77.8	67.8	56.8	49.5	61.5
Min.	29.2	31.6	41.5	51.9	62.8	69.6	74.4	73.2	65.8	56.7	44.9	31.9	56.4
Mean	40.5	41.8	50.0	58.3	67.4	74.7	77.8	76.6	71.6	60.7	50.1	41.2	59.3



# Highest Temperature at Reidsville

Year	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Highest
1901												69	
1902	64	68	76	86	93	97	98	99	91	85	80	68	99
1903	62	71	77	85	95	90	95	97	91	--	--	55	97
1904	65	68	79	83	89	94	98	94	90	88	73	63	98
1905	68	54	78	86	89	93	96	93	93	89	78	64	96
1906	70	71	69	92	97	97	95	94	94	84	74	70	97
1907	77	64	93	84	93	92	100	96	96	86	73	66	100
1908	66	61	84	88	90	95	95	97	90	86	79	73	97
1909	72	73	75	87	89	93	93	96	88	82	79	71	96
1910	73	70	88	89	92	94	96	94	93	89	75	63	96
1911	76	74	76	81	96	105	102	98	95	93	--	70	105
1912	60	64	82	84	93	96	--	100	104	92	77	74	--
1913	72	73	82	87	95	97	98	97	90	81	76	68	98
1914	74	66	78	90	99	103	102	100	97	85	80	63	103
1915	63	70	64	92	92	94	101	99	93	83	80	68	101
1916	74	69	79	87	95	92	91	93	96	91	80	71	96
1917	71	79	77	92	94	96	98	99	91	--	73	66	99
1918	57	77	83	82	95	100	95	101	88	87	73	74	101
1919	70	69	74	87	92	95	98	96	99	95	82	70	99
1920	74	62	78	87	87	96	96	93	92	88	78	64	96
1921	71	72	87	90	90	100	97	101	103	86	80	73	103
1922	66	75	83	89	90	94	95	93	95	92	76	73	95
1923	67	69	80	85	87	97	100	96	93	85	71	77	100
1924	69	69	75	87	87	99	95	100	100	86	80	80	100
1925	66	75	80	94	96	99	99	98	101	84	71	66	101
1926	69	72	79	85	95	99	100	98	96	93	72	68	100
1927	76	78	84	90	94	100	98	93	99	92	78	78	100
1928	77	67	81	80	94	96	97	99	92	88	76	67	99
1929	71	70	88	90	87	92	93	92	92	80	81	73	93
1930	72	84	75	94	91	100	99	104	101	83	79	65	104
1931	70	64	62	82	90	100	101	97	99	91	81	79	101
1932	75	84	78	85	93	94	98	104	103	80	68	70	104
1933	72	73	81	85	94	102	99	99	97	92	81	70	102
1934	71	67	79	89	92	101	101	95	89	81	80	68	101
1935	68	71	85	85	89	96	95	96	91	86	78	65	96
1936	59	76	82	88	94	100	101	98	94	83	78	68	101
1937	74	71	72	89	90	94	97	92	91	85	75	68	97
1938	67	72	84	85	93	90	93	96	93	88	79	67	96
1939	70	77	84	84	92	94	94	93	99	93	76	73	99
1940	54	68	76	83	95	95	101	93	94	87	78	70	101
1941	65	59	72	90	99	94	97	99	98	97	75	72	99
1942	70	63	78	90	92	96	101	100	93	83	80	70	101
1943	78	75	80	88	90	98	96	97	95	86	78	78	98
1944	78	79	82	87	94	100	96	96	97	89	78	64	100
1945	61	70	91	90	91	104	101	99	95	83	83	61	104
Summary of Period 1921-45													
Max.	78	84	91	94	99	104	101	104	103	97	83	80	104
Min.	54	59	62	80	87	90	93	92	89	80	68	61	93
Mean	69	72	80	87	92	97	98	97	96	87	77	71	100
Summary of Record													
Max.	78	84	93	94	99	105	102	104	104	97	83	80	105
Min.	54	54	62	80	87	90	91	92	88	80	68	55	93
Mean	69	71	79	87	92	97	97	97	95	87	77	69	99

Lowest Temperature at Reidsville

Year	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Lowest
1901												5	
1902	15	14	18	28	42	51	58	56	43	32	28	14	14
1903	14	11	26	26	41	44	54	60	44	--	--	11	11
1904	10	9	22	27	43	48	57	54	39	30	25	17	9
1905	9	2	28	29	45	49	60	51	48	32	19	16	2
1906	18	12	22	32	32	52	58	65	53	27	25	15	12
1907	13	13	26	26	38	48	58	54	45	34	22	17	13
1908	10	9	25	27	33	40	48	51	39	30	23	16	9
1909	12	13	21	25	32	50	50	50	43	29	30	10	10
1910	17	15	25	35	36	47	58	61	47	25	24	14	14
1911	20	23	19	30	38	55	57	56	49	38	--	20	--
1912	10	10	23	36	43	46	61	55	50	40	22	19	10
1913	25	16	20	32	38	44	58	59	43	29	22	22	16
1914	16	11	16	29	40	54	52	56	45	25	13	11	11
1915	20	22	22	28	49	48	56	61	44	32	24	19	19
1916	12	9	19	30	46	54	58	58	41	35	20	11	9
1917	13	2	21	30	37	48	59	54	44	--	20	-2	-2
1918	4	11	26	30	37	48	53	51	39	36	26	22	4
1919	11	16	28	27	47	51	52	54	46	47	25	16	11
1920	7	12	11	27	38	51	54	57	50	30	19	20	7
1921	16	23	28	29	40	51	58	53	57	31	24	23	16
1922	13	10	25	34	40	54	57	54	50	36	20	19	10
1923	23	13	19	20	33	51	59	50	49	37	26	23	13
1924	4	17	24	27	40	54	57	54	45	31	23	13	4
1925	13	22	12	34	37	54	58	52	54	27	19	6	6
1926	14	19	11	29	41	50	55	51	52	30	20	12	11
1927	7	25	20	30	40	51	50	53	43	38	25	16	7
1928	4	20	25	29	40	51	61	60	40	30	17	20	4
1929	17	18	21	34	44	43	57	53	41	35	11	11	11
1930	14	17	18	32	43	45	58	52	50	30	14	14	14
1931	13	20	26	33	39	50	62	52	44	33	26	24	13
1932	26	26	14	33	42	56	54	58	47	36	19	15	14
1933	17	10	20	36	46	45	50	58	48	30	19	13	10
1934	2	6	14	31	46	58	66	56	50	31	22	15	2
1935	6	12	24	31	43	53	58	53	44	33	19	7	6
1936	3	8	30	25	44	52	57	54	44	31	18	20	3
1937	30	17	16	30	36	58	55	61	46	29	17	14	14
1938	10	23	24	32	46	47	57	60	44	35	15	18	10
1939	17	15	23	31	37	64	61	58	52	32	29	21	15
1940	-2	15	18	24	38	55	55	59	39	31	25	15	-2
1941	15	17	18	40	38	54	63	53	48	36	23	22	15
1942	2	14	28	29	45	55	61	49	37	28	23	9	2
1943	14	7	9	25	38	65	58	54	43	29	24	9	7
1944	18	13	20	26	40	52	56	55	48	32	24	15	13
1945	18	11	33	28	37	45	60	55	56	34	22	10	10
Summary of Period 1921-45													
Max.	30	26	33	40	46	65	66	61	57	38	29	24	16
Min.	-2	6	9	20	33	43	50	49	37	27	11	6	-2
Mean	12	16	21	30	41	53	58	55	47	32	21	15	9.0
Summary of Record													
Max.	30	26	33	40	49	65	66	65	57	47	30	24	19
Min.	-2	2	9	20	32	40	48	49	37	25	11	-2	-2
Mean	13	14	21	30	40	51	57	55	46	32	22	15	9.3



Precipitation at Tarboro, Edgecombe County, North Carolina:  
Monthly and annual amounts (in inches and hundredths)

Tarboro, Edgecombe County.- Elevation, 50 feet

Year	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Annual
1871								4.50	2.30	6.60	5.20	2.50	
1872	1.30	4.65	3.87	2.60	6.60	4.90	4.50	6.05	4.30	10.50	2.00	3.50	54.77
1873	4.60	8.90	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----
1877	4.40	2.10	6.30	3.00	5.60	4.50	8.60	-----	-----	5.20	3.20	3.40	-----
1878	5.50	2.40	2.20	5.70	5.10	2.30	2.50	-----	-----	4.90	2.10	5.10	-----
1879	4.90	3.40	2.00	2.00	1.70	2.40	3.10	-----	-----	.70	.80	2.00	-----
1880	-----	-----	-----	-----	-----	2.70	13.40	-----	-----	3.10	6.50	4.60	-----
1881	6.20	3.30	2.60	-----	-----	-----	5.20	2.10	2.90	2.30	4.90	2.90	-----
1882	5.20	3.00	3.20	6.30	6.10	3.00	8.70	-----	-----	1.30	1.30	7.40	-----
1883	7.30	2.80	4.00	8.20	1.50	11.00	6.30	7.10	8.70	1.90	.60	1.80	61.20
1884	5.60	3.60	7.80	2.30	4.50	3.30	5.20	5.40	.70	.40	.80	4.00	43.60
1885	5.10	3.70	3.10	2.40	11.50	2.50	5.10	2.40	3.10	6.40	2.50	5.40	53.20
1886	1.80	2.10	3.40	3.60	4.70	6.50	6.30	5.30	3.20	1.40	1.30	5.00	44.60
1887	3.59	3.56	3.89	2.95	5.55	3.08	11.63	22.73	2.02	6.12	1.94	3.82	70.88
1888	4.18	-----	5.53	1.77	8.09	5.17	1.62	2.85	-----	-----	-----	-----	-----
1889	5.54	-----	-----	-----	8.30	3.78	10.50	5.88	4.75	4.20	4.56	-----	-----
1890	1.19	2.30	3.76	3.32	5.05	3.33	5.27	9.88	4.09	4.12	.30	3.92	46.53
1891	4.00	3.40	6.40	1.80	8.12	2.30	9.58	8.45	.94	3.72	2.57	1.83	53.11
1892	7.01	2.65	3.12	4.86	4.97	8.62	4.66	4.32	3.27	.90	2.30	4.16	50.84
1893	2.99	3.10	2.94	1.63	2.86	9.37	4.38	5.15	4.20	5.20	3.88	4.10	49.80
1894	4.93	4.80	2.64	1.30	3.70	3.72	9.14	13.32	5.43	6.96	1.63	2.39	59.96
1895	4.54	2.95	5.30	7.80	4.70	6.90	5.96	7.44	.10	2.99	2.26	2.79	53.70
1896	2.45	6.35	1.69	1.50	8.56	5.16	4.71	2.09	6.20	2.38	4.94	4.36	50.39
1897	1.92	4.61	4.72	2.81	3.46	2.30	6.69	4.56	1.08	3.82	2.99	3.48	42.44
1898	2.05	.90	3.24	3.39	4.43	3.40	8.12	9.54	1.84	4.59	3.40	2.69	47.59
1899	3.64	8.05	5.79	4.42	3.63	4.77	8.93	4.69	2.53	6.49	.92	3.21	57.07
1900	4.41	5.35	2.70	3.34	2.07	3.54	2.02	6.72	1.05	1.06	3.70	3.21	39.17
1901	1.85	1.92	3.02	5.45	5.54	1.29	8.24	11.61	8.24	3.51	1.23	5.11	57.01
1902	2.85	7.23	2.86	2.48	4.83	3.08	1.12	5.86	4.16	3.17	3.35	2.18	43.17
1903	3.38	6.27	5.48	4.39	2.43	5.26	4.44	7.43	1.42	4.81	.74	2.42	48.47
1904	3.21	4.24	4.09	1.17	2.04	2.13	4.87	5.28	2.70	1.91	4.55	4.48	40.67
1905	3.21	6.79	3.51	7.52	4.46	3.66	7.83	4.66	3.00	1.62	.80	5.54	52.60
1906	3.29	4.96	5.16	.71	2.17	3.04	6.53	6.09	2.45	2.87	.70	3.03	41.00
1907	1.01	4.84	2.85	4.60	3.83	5.59	5.20	6.96	3.27	1.33	5.08	5.05	49.61
1908	5.20	4.38	4.47	2.03	4.31	3.27	9.36	6.74	.72	3.55	1.25	3.46	48.74
1909	2.00	3.41	1.96	5.93	6.17	9.92	4.07	6.99	.86	1.42	1.21	2.48	46.42
1910	2.72	3.38	1.58	5.30	4.66	7.34	5.76	9.07	2.96	1.80	.95	3.49	49.01
1911	3.73	2.15	3.67	2.89	.52	2.82	5.48	5.16	4.13	2.60	4.87	3.10	41.12
1912	3.91	3.02	5.62	3.19	2.86	6.56	4.07	4.63	5.25	.62	1.92	3.51	45.16
1913	6.27	2.85	4.94	.67	3.80	4.13	5.41	4.49	7.77	4.85	1.00	3.46	49.64
1914	2.22	5.37	3.19	2.03	2.08	2.71	7.31	3.12	3.43	3.97	2.54	5.76	43.73
1915	5.98	2.76	3.05	2.27	5.22	2.55	7.21	3.95	3.89	3.97	1.70	2.94	45.49
1916	3.49	3.82	3.30	2.58	5.25	4.57	5.98	6.51	2.08	3.07	1.32	3.34	45.31
1917	3.83	2.58	4.48	4.29	2.77	5.23	9.37	2.25	12.00	3.52	.74	2.55	53.61
1918	3.73	.80	1.47	7.27	5.77	2.08	4.86	4.45	2.77	1.24	1.98	4.37	40.79
1919	3.56	4.05	2.89	1.74	5.27	5.09	10.57	5.40	1.79	3.53	.24	2.77	46.90
1920	2.54	6.63	6.24	4.08	.61	5.39	7.78	5.43	2.71	.92	4.44	6.76	53.53
1921	2.37	3.34	3.26	3.30	5.07	.90	5.28	1.15	1.49	1.22	4.27	2.38	34.03
1922	5.20	8.46	7.39	3.02	5.24	12.74	6.11	3.46	1.99	3.44	.80	4.20	62.05
1923	3.41	3.87	5.85	4.76	2.80	1.41	3.68	2.95	4.00	2.36	3.50	1.49	40.08
1924	4.18	5.69	1.73	2.58	5.43	5.43	5.99	4.42	7.98	1.01	1.01	2.96	48.41
1925	7.04	3.01	3.86	2.32	1.91	8.53	6.38	3.44	1.65	3.23	3.02	3.97	48.36



Precipitation at Tarboro, Edgecombe County, North Carolina:  
Monthly and annual amounts (in inches and hundredths)

Year	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Annual
1926	5.06	3.56	5.12	3.48	1.31	4.55	5.05	3.00	.42	1.38	4.26	3.32	40.51
1927	.64	5.42	2.92	4.16	1.42	3.69	6.81	8.78	1.71	3.79	3.84	6.35	49.53
1928	.96	3.86	2.69	5.73	4.97	5.77	4.59	4.70	11.18	1.09	1.96	5.11	52.61
1929	3.92	5.96	5.80	1.94	6.13	5.72	4.87	3.02	4.73	8.62	5.23	3.17	59.11
1930	4.04	1.46	2.08	2.63	1.47	8.24	3.06	2.63	1.22	2.81	1.89	4.19	35.72
1931	2.10	1.45	3.26	3.91	5.16	3.78	5.64	11.36	6.69	.91	.27	5.48	50.01
1932	3.56	2.30	3.18	1.58	5.20	2.85	3.53	2.71	1.53	5.03	2.98	5.06	39.51
1933	3.27	3.83	2.79	3.46	3.99	2.04	8.16	4.06	2.44	.29	1.27	1.23	36.83
1934	2.15	4.64	5.69	4.22	4.96	4.25	7.41	9.39	4.65	.22	3.35	2.24	53.17
1935	4.00	2.51	3.53	4.12	4.05	1.40	9.20	3.48	5.99	.81	4.28	3.27	46.64
1936	4.69	3.84	4.05	5.57	.75	7.77	12.68	1.29	.92	7.05	4.14	4.58	57.33
1937	6.80	4.08	2.12	5.77	1.50	5.08	4.17	7.05	2.18	3.68	4.33	2.66	49.42
1938	3.37	.86	2.11	6.00	5.51	6.32	5.83	1.12	8.66	2.76	1.75	2.99	47.28
1939	4.64	7.57	4.84	4.52	1.76	6.01	9.90	8.33	2.33	1.90	3.19	2.35	57.34
1940	3.05	2.30	3.78	2.87	2.68	3.23	4.57	14.14	3.46	.71	3.94	2.55	47.28
1941	1.71	3.32	3.79	3.49	1.23	8.63	9.46	7.26	1.67	2.70	.83	2.38	46.47
1942	1.28	2.33	6.01	1.28	3.30	3.28	4.83	9.14	1.53	6.67	1.60	4.66	45.91
1943	5.60	1.26	5.02	2.74	3.37	5.32	4.91	.76	1.45	.71	1.00	3.89	36.03
1944	4.44	4.94	7.91	3.62	3.63	2.06	5.40	2.05	6.69	2.82	3.26	2.59	49.41
1945	2.55	5.01	2.03	2.03	3.63	3.77	11.01	4.65	6.51	1.00	3.86	5.75	51.80
Summary of Period 1921-45													
Max.	7.04	8.46	7.91	6.00	6.13	12.74	12.68	14.14	11.18	8.62	5.23	6.35	62.05
Min.	.64	1.26	1.73	1.28	.75	.90	3.06	.76	.42	.22	.27	1.23	34.03
Mean	3.60	3.79	4.03	3.56	3.46	4.91	6.34	4.97	3.72	2.65	2.79	3.55	47.39
Summary of Record													
Max.	7.30	8.90	7.91	8.20	11.50	12.74	13.40	22.73	12.00	10.50	6.50	7.40	70.88
Min.	.64	.80	1.47	.67	.52	.90	1.12	.76	.10	.24	.27	1.23	34.03
Mean	3.75	3.89	3.89	3.53	4.16	4.59	6.37	5.77	3.56	3.11	2.53	3.65	48.48

Mean Temperature at Tarboro

Year	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Annual
1892	41.0	44.4	47.4	58.6	69.4	78.1	78.2	80.6	71.2	58.9	48.6	40.5	59.8
1893	31.3	45.7	47.4	62.6	67.8	75.4	81.2	77.6	72.2	61.2	50.4	46.2	59.8
1894	45.6	46.8	57.2	59.0	71.3	77.2	79.2	77.0	74.9	62.0	49.2	45.0	62.0
1895	41.0	33.0	----	----	----	78.0	77.6	78.6	77.2	56.8	52.4	44.0	----
1896	39.6	44.0	48.9	64.0	74.0	75.7	80.6	79.6	71.8	58.2	55.6	39.8	61.0
1897	37.8	45.4	52.2	59.0	66.2	76.3	78.8	76.8	72.7	62.9	51.8	43.4	60.3
1898	44.1	40.6	55.8	55.8	70.0	77.0	81.4	80.7	75.2	63.2	49.0	45.2	61.5
1899	41.4	37.6	52.8	58.4	68.6	78.2	79.0	79.6	72.8	63.1	50.3	41.8	60.3
1900	42.0	41.3	48.3	59.5	68.9	77.7	83.4	84.2	77.2	67.4	55.6	41.8	62.3
1901	41.4	38.1	53.6	55.0	70.0	77.4	82.2	80.4	74.5	63.6	46.0	43.8	60.5
1902	39.1	37.5	53.9	59.6	71.6	78.6	83.4	79.7	72.6	65.2	57.4	41.4	61.7
1903	43.4	47.4	59.6	59.4	70.6	73.2	81.6	80.3	73.7	60.8	48.0	38.0	61.3
1904	37.2	38.0	51.5	57.6	68.5	77.6	79.8	78.4	72.6	60.0	49.4	40.0	59.2
1905	38.2	36.0	56.1	59.8	72.4	78.4	82.2	79.4	75.6	65.5	51.8	43.6	61.6
1906	46.0	42.0	47.4	62.3	69.4	78.2	79.0	82.2	77.5	62.4	51.8	44.6	61.9
1907	48.0	38.4	56.0	52.3	67.3	72.0	81.3	78.2	75.8	59.2	50.4	44.8	60.3
1908	42.0	41.2	56.7	63.3	70.0	75.9	81.0	77.4	71.5	62.4	53.2	46.9	61.8
1909	46.2	50.6	49.4	62.2	68.0	78.6	77.0	77.0	71.2	58.2	55.3	39.5	61.1
1910	41.8	43.2	57.5	62.0	67.8	75.2	80.4	78.6	75.2	65.0	46.2	37.9	60.9
1911	46.8	45.7	48.9	57.4	72.4	79.6	81.2	80.8	77.0	64.1	48.8	47.5	62.5
1912	34.2	38.7	49.4	63.5	70.9	75.4	79.6	78.2	76.8	63.4	49.0	46.6	60.5
1913	51.9	44.3	56.8	60.9	70.4	75.8	82.0	78.4	72.1	62.8	51.2	45.2	62.6
1914	45.2	39.6	44.8	60.2	70.0	80.0	79.2	80.0	70.8	64.2	50.1	41.0	60.4
1915	42.5	46.4	43.5	60.2	70.6	74.4	80.5	78.9	75.8	64.8	52.2	41.0	60.9



Mean Temperature at Tarboro (continued)

Year	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Annual
1916	47.4	44.1	48.8	59.4	73.0	74.3	79.3	78.4	70.4	64.0	52.6	42.8	61.2
1917	44.4	42.0	50.0	61.8	65.2	75.2	79.6	78.7	69.2	58.2	47.2	33.6	58.8
1918	32.0	46.6	55.3	58.0	73.6	75.6	76.2	81.0	69.0	65.4	51.2	47.0	60.9
1919	43.7	43.6	54.1	59.8	70.3	75.6	79.5	78.2	73.0	71.4	53.0	41.4	62.0
1920	39.9	39.2	51.8	60.1	65.2	76.6	78.3	78.5	75.2	64.8	51.8	44.5	60.5
1921	43.8	45.7	59.6	63.4	65.9	78.5	81.7	80.1	81.2	62.4	55.6	44.4	63.5
1922	39.1	47.1	53.6	62.0	70.4	78.4	81.0	77.0	75.0	63.9	51.1	46.8	62.1
1923	44.9	41.0	53.2	60.1	68.8	78.0	80.0	79.2	75.0	59.6	50.4	49.0	61.6
1924	40.4	41.2	48.5	58.4	67.8	77.4	77.4	79.0	69.0	60.2	51.7	43.8	59.6
1925	40.8	50.0	54.0	63.4	65.3	79.5	80.4	77.2	78.3	59.6	49.5	41.4	61.6
1926	40.8	46.6	46.1	58.5	68.4	75.0	80.3	82.3	75.8	63.6	49.4	42.9	60.8
1927	41.2	51.2	52.7	59.6	70.4	73.3	78.3	74.9	73.8	64.5	55.4	44.5	61.6
1928	41.8	44.7	51.5	58.1	66.6	76.4	80.0	80.5	69.8	63.8	52.3	43.5	60.8
1929	43.6	41.4	56.4	63.3	69.0	74.0	77.2	77.2	71.8	61.2	53.6	45.0	61.1
1930	44.0	48.4	50.0	59.8	71.6	75.2	81.4	76.8	78.7	59.7	50.6	40.6	61.4
1931	41.9	45.2	45.8	58.4	68.5	76.2	82.6	78.2	76.3	63.7	57.2	51.6	62.2
1932	52.9	50.4	48.8	59.0	67.5	77.0	82.1	79.4	73.2	63.4	51.3	48.0	62.8
1933	49.4	46.0	51.8	61.0	74.1	78.2	78.7	79.3	78.6	63.6	50.2	48.9	63.3
1934	46.6	34.8	48.5	61.2	68.7	79.2	81.2	79.6	75.4	61.4	54.2	43.0	61.2
1935	41.6	44.2	57.8	57.6	67.6	77.8	79.3	78.9	72.6	62.6	55.4	36.9	61.0
1936	38.6	39.2	55.7	58.0	71.1	75.7	80.0	80.0	75.6	64.1	50.1	46.4	61.2
1937	52.6	43.6	49.1	59.4	69.5	78.2	79.7	78.2	70.8	59.6	49.5	42.6	61.1
1938	41.6	49.0	58.4	62.5	69.8	74.8	78.3	80.6	72.6	61.4	55.4	43.6	62.3
1939	45.2	51.0	55.2	60.2	68.8	79.6	77.7	79.1	74.8	64.2	48.2	43.4	62.3
1940	31.0	44.2	48.8	58.0	68.6	78.2	78.8	78.2	70.2	59.3	51.8	47.0	59.5
1941	40.5	38.2	45.4	63.1	70.2	75.8	80.5	78.0	76.1	67.7	52.4	45.7	61.1
1942	40.3	39.4	53.2	62.0	71.4	79.2	82.6	77.8	74.2	62.2	52.8	41.0	61.3
1943	43.0	44.6	50.2	58.3	72.2	82.0	80.2	80.8	71.2	61.6	50.4	40.8	61.3
1944	40.8	44.0	49.6	60.2	74.0	79.8	79.0	77.1	74.6	59.4	49.6	37.2	60.4
1945	38.6	44.9	60.8	64.8	65.8	77.4	79.2	76.6	76.6	60.8	52.7	37.9	61.4
Summary of Period 1921-45													
Max.	52.9	51.2	60.8	64.8	74.1	82.0	82.6	82.3	81.2	67.7	57.2	51.6	63.5
Min.	31.0	34.8	45.4	57.6	65.3	73.3	77.2	74.9	69.0	59.3	48.2	36.9	59.5
Mean	42.6	44.6	52.2	60.4	69.3	77.4	79.9	78.6	74.4	62.1	52.0	43.8	61.5
Summary of Record													
Max.	52.9	51.2	60.8	64.8	74.1	82.0	83.4	84.2	81.2	71.4	57.4	51.6	63.5
Min.	31.0	33.0	43.5	52.3	65.2	72.0	76.2	74.9	69.0	56.8	46.0	33.6	58.8
Mean	42.2	43.3	52.1	60.0	69.5	77.0	80.0	79.0	74.0	62.5	51.5	43.2	61.2

Highest Temperature at Tarboro

Year	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Highest
1887	73	75	78	85	90	100	102	93	95	86	76	67	102
1888	--	--	--	92	92	97	100	100	--	--	--	--	--
1889	--	--	--	--	--	--	--	--	--	--	--	--	--
1890	--	--	--	--	--	--	--	--	--	--	--	--	--
1891	--	--	--	--	--	--	--	--	--	--	--	--	--
1892	70	70	76	86	94	100	102	97	88	88	82	72	102
1893	69	76	76	93	95	94	102	95	94	88	78	76	102
1894	72	75	91	88	97	100	97	97	97	88	75	73	100
1895	71	73	--	--	--	104	99	98	104	83	81	73	104
1896	67	72	78	97	99	93	103	105	101	81	82	67	105
1897	69	76	85	90	90	100	99	99	101	93	79	74	101
1898	77	74	91	89	97	102	103	98	95	88	79	72	103
1899	77	74	77	88	97	103	100	100	106	89	78	74	106
1900	71	75	74	87	97	99	105	105	100	94	86	71	105

Highest Temperature at Tarboro (continued)

Year	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Highest
1901	78	73	78	80	93	99	104	96	95	90	80	79	104
1902	67	72	82	89	96	101	104	104	96	88	87	72	104
1903	69	74	78	90	98	92	99	100	94	91	82	64	100
1904	69	78	82	88	93	100	101	98	93	90	75	75	101
1905	71	60	84	88	95	99	97	100	95	91	77	69	100
1906	81	73	75	93	98	100	98	97	97	87	81	74	100
1907	81	70	96	86	93	95	99	95	95	85	79	70	99
1908	67	69	88	90	93	102	98	97	91	90	79	76	102
1909	79	78	79	92	92	97	95	96	92	86	81	71	97
1910	73	77	91	90	95	94	95	96	94	91	75	69	96
1911	77	76	78	87	97	104	103	98	95	95	74	74	104
1912	64	75	84	88	94	98	98	98	100	93	83	80	100
1913	77	74	82	90	97	98	101	95	93	86	81	70	101
1914	79	74	78	95	101	103	101	98	97	88	82	72	103
1915	74	75	67	97	94	99	101	98	98	88	82	77	101
1916	78	79	84	90	99	95	96	96	94	89	82	74	99
1917	73	80	80	94	96	100	100	98	99	88	78	69	100
1918	64	79	85	86	97	103	96	102	91	89	78	78	103
1919	74	75	81	90	96	96	99	95	96	97	86	74	99
1920	76	67	85	93	91	99	97	96	95	89	80	70	99
1921	76	77	88	91	93	101	101	102	104	87	81	75	104
1922	75	80	84	95	91	98	98	94	97	91	79	74	98
1923	76	74	83	86	89	101	102	99	96	85	77	76	102
1924	72	73	83	88	93	100	97	98	95	86	82	80	100
1925	71	78	86	98	96	99	99	99	100	90	75	72	100
1926	71	76	77	88	93	99	102	101	96	93	79	70	102
1927	77	81	87	92	96	95	97	93	97	90	81	82	97
1928	78	70	84	83	93	96	98	98	92	87	80	68	98
1929	75	75	88	94	90	94	95	96	91	83	84	77	96
1930	79	85	77	97	94	99	100	100	99	90	78	68	100
1931	71	72	68	86	91	98	100	97	98	91	83	82	100
1932	81	83	83	90	95	96	103	106	102	86	75	77	106
1933	78	76	85	87	96	105	99	97	98	91	86	76	105
1934	77	72	81	87	93	101	98	97	91	86	81	71	101
1935	71	75	89	89	91	99	99	100	94	87	85	69	100
1936	70	79	85	86	96	103	105	99	99	87	83	73	105
1937	80	78	79	89	95	98	101	94	92	89	75	72	101
1938	66	80	86	88	95	92	95	100	95	89	85	71	100
1939	75	79	87	89	94	96	93	96	98	93	76	71	98
1940	64	72	80	88	97	99	104	95	93	86	80	76	104
1941	70	63	74	94	101	96	98	99	98	98	79	75	101
1942	73	69	84	92	95	100	107	102	96	85	82	78	107
1943	79	79	83	92	94	101	97	103	99	89	80	78	103
1944	80	76	85	87	95	103	102	98	99	89	75	72	103
1945	64	80	92	90	92	99	98	94	94	85	82	62	99
Summary of Period 1921-45													
Max.	81	85	92	98	101	105	107	106	104	98	86	82	107
Min.	64	63	68	83	89	92	93	93	91	83	75	62	96
Mean	74	76	83	90	94	99	100	98	97	89	80	74	101
Summary of Record													
Max.	81	85	96	98	101	105	107	106	106	98	87	82	107
Min.	64	60	67	80	89	92	93	93	88	81	74	62	96
Mean	73	75	82	90	95	99	100	98	96	89	80	73	101



Lowest Temperature at Tarboro

Year	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Lowest
1887	9	23	24	30	44	51	63	55	40	35	26	17	9
1888	--	--	--	34	44	52	57	54	--	--	--	--	--
1889	--	--	--	--	--	--	--	--	--	--	--	--	--
1890	--	--	--	--	--	--	--	--	--	--	--	--	--
1891	--	--	--	--	--	--	--	--	--	--	--	--	--
1892	20	19	24	28	42	55	50	63	44	28	19	2	2
1893	-1	21	22	36	42	53	58	55	40	33	20	19	-1
1894	23	21	21	31	44	47	57	58	53	34	21	11	11
1895	11	4	--	--	--	48	57	54	47	30	23	18	4
1896	11	8	20	28	40	54	61	52	36	29	26	6	6
1897	7	19	25	26	37	50	57	58	39	35	22	14	7
1898	12	9	20	26	38	52	60	59	50	34	21	10	9
1899	13	-2	20	29	43	51	48	62	38	34	26	2	-2
1900	8	9	22	28	41	51	57	59	47	36	27	15	8
1901	18	12	13	35	46	55	67	64	50	33	18	10	10
1902	14	19	22	33	45	49	58	54	45	32	32	18	14
1903	20	17	34	32	43	46	61	63	43	29	16	15	15
1904	10	14	26	27	43	47	58	56	41	32	24	20	10
1905	13	14	22	31	46	49	68	58	50	39	20	19	13
1906	20	15	21	32	34	57	61	69	56	27	24	16	15
1907	16	15	25	29	41	48	56	57	46	29	25	21	15
1908	19	16	23	29	39	53	59	59	43	36	26	23	16
1909	19	19	27	30	41	59	54	53	39	29	23	13	13
1910	16	14	26	35	39	49	60	60	52	27	26	14	14
1911	23	23	21	31	41	54	61	61	50	42	25	22	21
1912	10	1	24	34	47	47	61	53	55	32	20	19	1
1913	28	20	26	30	35	51	56	56	44	29	24	21	20
1914	18	13	18	30	42	52	55	54	40	28	21	15	13
1915	22	21	24	28	49	54	56	59	46	36	25	19	19
1916	15	12	21	32	44	50	58	57	44	36	20	19	12
1917	20	7	27	31	40	52	63	53	45	29	20	1	1
1918	1	15	27	30	40	52	51	55	40	37	29	20	1
1919	18	20	31	26	47	53	50	55	49	44	24	17	17
1920	10	18	19	31	37	52	53	59	50	33	21	22	10
1921	19	25	32	30	43	47	66	53	58	29	25	21	19
1922	17	15	27	34	42	59	62	52	55	37	22	25	15
1923	22	17	27	25	41	51	58	54	45	36	23	24	17
1924	9	23	26	28	46	55	58	52	47	30	25	14	9
1925	17	24	18	38	40	53	57	55	55	31	25	10	10
1926	18	21	15	29	39	54	56	62	55	28	23	14	14
1927	10	28	14	31	42	51	55	55	45	39	25	17	10
1928	9	23	27	31	41	53	58	61	44	33	24	18	9
1929	20	19	22	34	42	46	55	54	45	37	17	13	13
1930	16	19	22	32	45	45	62	54	53	29	17	18	16
1931	16	22	22	33	42	50	67	59	45	33	26	22	16
1932	27	25	18	35	44	51	56	56	48	34	24	21	18
1933	24	16	22	34	49	45	53	58	48	32	16	14	14
1934	8	7	18	33	45	59	66	51	56	29	23	17	7
1935	10	11	23	36	44	49	56	54	43	32	25	11	10
1936	11	12	29	29	42	51	54	47	48	30	20	22	11
1937	34	20	14	33	38	56	59	60	45	32	18	18	14
1938	17	25	23	33	46	46	56	59	44	36	19	21	17
1939	17	21	28	30	40	62	58	58	50	34	26	20	17
1940	6	16	16	29	41	52	56	57	45	28	21	11	6
1941	17	18	20	37	35	52	63	50	47	36	23	21	17
1942	5	14	26	31	46	58	64	52	39	32	22	9	5
1943	17	10	13	27	40	64	61	55	42	35	27	10	10

Lowest Temperature at Tarboro (continued)

Year	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Lowest
1944	8	19	23	27	43	55	56	51	49	31	27	17	8
1945	17	15	33	34	37	46	55	52	61	31	22	18	15
Summary of Period 1921-45													
Max.	34	28	33	38	49	64	67	62	61	39	27	25	19
Min.	5	7	13	25	35	45	53	47	39	28	16	9	5
Mean	16	19	22	32	42	52	59	55	48	33	23	17	13
Summary of Record													
Max.	34	28	34	38	49	64	68	69	61	44	32	25	21
Min.	-1	-2	13	25	34	45	48	47	36	27	16	1	-2
Mean	15	16	23	31	42	52	58	56	47	33	23	16	11

Precipitation at Weldon, Halifax County, North Carolina:  
Monthly and annual amounts (in inches and hundredths)

Weldon, Halifax County.- Elevation, 81 feet

Year	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Annual
1872	3.39	4.55	3.41	2.17	5.19	4.37	7.07	4.94	4.03	8.36	1.68	3.84	53.00
1873	4.65	8.03	2.51	1.08	6.68	.71	5.19	10.27	3.45	4.24	5.12	2.44	54.37
1874	32.9	3.59	3.08	6.22	4.50	3.39	3.50	4.83	5.13	.06	1.76	2.38	40.73
1875	5.50	3.88	8.09	4.32	1.27	1.24	4.94	8.04	1.71	1.77	3.43	3.39	47.58
1876	.58	3.08	3.91	2.81	1.77	4.47	1.65	7.44	7.25	.17	3.22	2.89	31.99
1877	3.65	.90	4.47	3.50	2.75	3.40	7.76	4.78	8.08	5.15	3.03	2.43	49.90
1878	3.54	1.60	.35	5.53	6.32	2.61	2.55	9.15	3.01	4.52	1.60	6.05	46.83
1879	4.58	1.81	1.65	3.22	2.30	1.40	3.94	5.12	2.13	1.01	.41	2.61	30.18
1880	1.85	2.10	4.94	2.10	.17	3.10	3.85	9.98	1.70	1.10	5.93	5.55	42.37
1881	3.64	1.44	1.49	3.06	1.88	5.64	1.05	1.07	3.77	3.44	4.27	2.70	33.45
1882	6.76	3.61	2.88	4.25	6.00	1.39	4.48	3.89	6.62	3.97	.52	2.90	47.27
1883	5.68	3.79	3.28	6.79	1.80	6.73	2.91	2.94	7.75	5.59	.87	2.23	50.36
1884	5.43	3.36	7.06	1.99	2.91	3.14	7.70	1.86	.23	1.05	1.30	5.99	42.02
1885	4.76	2.78	3.11	2.51	8.53	3.25	3.86	1.32	1.58	5.11	2.33	3.30	42.44
1886	2.88	2.26	4.01	2.06	2.11	6.75	10.40	5.02	1.75	2.38	2.21	4.71	46.54
1887	3.97	3.07	4.30	1.92	8.07	5.06	6.27	5.88	3.49	9.97	1.37	4.20	57.57
1888	3.83	3.30	7.41	1.18	8.84	5.38	1.46	1.82	10.56	3.31	3.65	2.43	53.17
1889	4.67	3.53	3.87	6.59	8.48	8.82	8.59	3.54	3.26	3.39	2.61	.80	58.15
1890	1.02	3.03	5.07	2.15	5.98	3.64	6.92	6.95	3.39	4.97	.05	4.95	48.12
1891	3.80	4.86	8.30	3.34	9.34	4.13	5.78	8.79	1.37	6.10	2.07	1.70	59.58
1892	6.15	2.96	2.62	4.38	3.57	5.12	7.16	6.59	2.72	1.05	3.58	3.46	49.36
1893	2.39	4.54	2.23	.96	3.21	5.50	5.52	2.72	5.80	5.46	3.64	5.41	47.38
1894	4.65	4.67	2.13	2.79	4.13	2.06	3.97	5.70	4.72	6.87	1.23	3.72	45.64
1895	5.26	2.12	5.19	8.08	4.13	3.72	7.01	4.07	.07	2.43	2.61	2.65	47.34
1896	2.61	6.84	3.01	1.94	7.23	6.17	9.02	2.14	6.48	1.59	1.79	3.91	52.73
1897	2.25	5.47	4.58	3.10	2.89	1.86	4.20	2.16	4.30	4.12	3.21	2.91	41.05
1898	2.40	.79	4.37	3.65	6.14	5.18	5.46	5.08	2.42	3.34	3.18	2.62	44.63
1899	2.88	8.11	5.11	2.97	2.28	3.06	10.30	2.59	3.82	5.25	1.50	2.73	50.60
1900	2.69	4.87	5.31	3.23	2.74	2.64	3.18	2.65	2.35	1.25	4.08	3.14	38.13
1901	2.30	1.21	3.78	5.88	5.53	1.61	7.48	11.07	6.92	3.21	1.52	5.45	55.96
1902	2.38	5.21	3.49	3.67	3.08	3.66	3.28	4.45	3.29	3.19	3.20	3.76	42.66
1903	2.46	4.51	6.26	5.89	2.58	9.84	3.33	6.14	1.69	3.67	1.47	1.71	49.55
1904	3.13	4.20	3.95	1.04	3.75	5.55	6.96	4.12	4.35	2.64	3.64	3.68	47.01
1905	2.41	5.48	4.39	3.72	3.66	2.79	4.95	6.02	4.12	1.37	1.37	6.13	46.41
1906	2.77	5.08	4.36	1.84	2.46	1.87	6.09	13.42	2.19	2.44	.92	2.62	46.06
1907	1.29	4.23	4.01	4.96	4.38	8.52	3.20	2.68	2.07	1.45	4.94	5.65	47.38
1908	5.11	3.63	4.62	1.31	2.79	3.83	8.93	12.25	.79	2.25	1.41	4.07	50.99
1909	1.08	2.68	1.91	4.94	4.34	7.29	3.02	3.47	2.41	1.75	.63	2.09	35.61
1910	3.52	2.28	1.66	7.88	5.05	10.00	2.95	5.09	1.96	4.27	1.00	4.12	49.78



Precipitation at Weldon, Halifax County, North Carolina:  
Monthly and annual amounts (in inches and hundredths)

Year	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Annual
1911	3.48	2.01	3.08	2.43	.68	2.31	5.12	4.10	3.62	2.67	5.54	3.74	38.78
1912	2.63	1.92	4.94	3.71	3.98	4.05	2.99	1.32	4.59	1.22	2.32	4.15	37.82
1913	3.59	2.04	3.31	1.38	4.11	2.61	4.66	1.86	4.72	6.33	1.75	2.62	38.98
1914	2.48	3.66	2.48	2.37	2.56	2.70	4.61	4.80	3.76	1.92	2.49	5.02	38.85
1915	4.63	2.24	2.18	2.03	5.15	3.26	3.74	5.57	1.90	1.95	1.55	2.64	36.84
1916	1.88	3.25	1.65	2.40	4.43	4.93	6.81	3.79	4.26	3.48	1.65	2.77	41.30
1917	3.83	2.48	7.35	2.71	4.21	4.46	13.13	1.65	4.61	4.48	1.07	2.09	52.07
1918	4.56	.35	2.45	5.82	4.67	3.26	4.81	5.90	6.09	1.33	1.29	4.18	44.67
1919	3.32	3.03	4.53	1.93	6.82	4.45	13.55	6.11	2.68	2.02	.45	1.24	50.13
1920	2.71	5.75	5.23	3.21	1.48	5.54	5.65	4.40	1.60	1.76	5.67	4.32	47.32
1921	3.54	2.59	2.81	2.85	4.18	4.16	3.28	1.59	2.36	.90	2.22	3.92	34.47
1922	5.11	5.62	6.19	2.20	3.94	7.01	10.26	4.78	.05	4.11	.62	3.48	53.37
1923	3.72	2.97	6.92	4.56	2.74	1.32	6.13	5.13	2.03	1.64	2.52	2.41	42.09
1924	3.91	4.68	3.38	2.78	9.13	4.80	5.27	2.86	13.07	1.17	1.26	2.71	55.02
1925	7.53	2.43	2.35	1.02	5.81	3.76	4.47	2.37	1.34	2.99	2.31	3.97	40.35
1926	4.57	4.11	3.66	2.45	1.49	4.66	3.01	3.59	.92	1.27	3.90	4.64	38.27
1927	.67	3.85	2.97	5.28	1.93	5.63	3.00	7.84	2.78	2.86	2.46	6.31	45.58
1928	1.30	3.29	3.96	5.32	2.39	4.68	4.32	3.99	13.07	.62	1.57	1.86	46.37
1929	2.13	5.32	4.74	2.25	5.86	8.10	4.52	4.49	2.19	7.97	4.01	1.95	53.53
1930	3.29	.71	2.13	2.17	1.43	6.41	3.20	1.37	.64	2.41	2.01	3.44	29.21
1931	1.01	1.17	1.34	2.15	3.52	2.44	5.91	5.79	1.29	.59	.31	2.98	28.50
1932	4.31	2.76	4.07	2.01	.98	4.74	2.51	3.86	2.05	6.02	3.94	4.34	41.59
1933	3.66	3.09	3.06	4.31	4.21	2.79	8.07	2.99	.71	.67	.77	.95	35.28
1934	1.70	4.04	4.98	2.56	3.26	2.40	6.28	3.77	5.03	.23	3.88	2.14	40.27
1935	4.17	2.87	3.86	5.55	2.50	1.46	8.94	6.24	8.18	1.73	3.68	2.51	51.69
1936	8.59	4.21	4.44	4.51	.36	3.98	5.48	4.48	1.64	3.18	2.36	4.76	47.99
1937	7.87	3.20	2.16	7.22	1.39	3.17	4.24	6.06	3.70	4.19	2.45	1.75	47.40
1938	2.21	.95	2.60	3.47	5.13	10.13	5.69	.44	6.99	2.53	1.94	2.56	44.64
1939	2.17	4.82	5.06	3.56	2.32	4.04	10.02	13.45	1.40	1.73	2.69	1.71	52.97
1940	2.74	2.51	2.36	4.25	6.60	2.29	4.19	13.41	1.53	1.17	4.01	1.73	46.79
1941	1.64	2.38	2.27	2.03	1.00	2.63	6.20	3.83	.98	1.28	.83	3.13	28.20
1942	1.65	2.43	3.75	1.04	2.68	4.05	4.31	5.64	3.00	5.29	1.04	4.56	39.44
1943	3.73	1.81	4.48	2.37	3.92	3.96	6.49	.77	3.52	.78	.93	2.56	35.32
1944	3.74	4.83	6.43	4.13	2.67	2.33	5.39	5.29	6.58	2.12	5.44	2.62	51.57
1945	2.27	4.97	1.52	2.40	4.97	1.13	8.53	5.29	8.77	1.93	1.92	6.45	50.15
Summary of Period 1921-45													
Max.	8.59	5.62	6.92	7.22	9.13	10.13	10.26	13.45	13.07	7.97	5.44	6.45	55.02
Min.	.67	.71	1.34	1.02	.36	1.13	2.51	.44	.05	.23	.31	.95	28.20
Mean	3.49	3.26	3.66	3.30	3.38	4.08	5.59	4.77	3.75	2.38	2.37	3.18	43.20
Summary of Record													
Max.	8.59	8.11	8.30	8.08	9.34	10.13	13.55	13.45	13.07	9.97	5.93	6.45	59.58
Min.	.58	.35	.35	.96	.17	.71	1.05	.44	.05	.06	.05	.80	28.20
Mean	3.42	3.40	3.80	3.37	3.94	4.17	5.55	4.98	3.71	2.97	2.37	3.37	45.02



## Mean Temperature at Weldon

Year	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Annual
1872		40.4	40.3	58.0	69.4	74.7	81.2	78.2	70.6	56.7	42.6	31.9	-----
1873	38.1	40.9	44.8	57.9	66.4	75.5	78.9	75.3	69.4	53.6	43.4	41.6	57.2
1874	44.3	41.8	51.3	52.7	66.1	77.7	76.9	72.3	69.6	56.5	46.8	41.0	58.0
1875	34.5	36.9	48.4	53.6	66.7	75.2	82.2	74.5	66.1	55.3	46.4	43.7	57.0
1876	45.6	42.7	48.0	58.6	69.2	79.3	82.4	78.6	69.1	56.4	49.3	32.8	59.2
1877	38.6	44.2	49.7	58.2	64.4	77.9	82.0	78.8	71.6	63.4	52.2	46.6	60.6
1878	40.4	46.3	56.4	63.6	69.4	73.1	84.3	80.3	73.6	59.9	50.2	39.6	61.4
1879	39.2	40.0	53.2	57.7	69.7	78.1	82.3	77.3	69.1	66.3	49.6	49.3	61.2
1880	48.9	48.2	49.8	63.0	74.9	79.3	80.6	77.0	71.5	59.3	44.6	35.4	61.0
1881	34.5	41.7	46.7	54.5	70.1	76.3	80.7	78.4	78.0	65.8	51.3	44.6	60.2
1882	39.5	47.0	49.9	56.3	64.2	76.4	77.4	77.7	71.2	62.6	45.0	36.2	58.6
1883	37.0	46.6	43.5	56.5	78.3	76.6	80.5	76.3	70.3	61.0	51.4	43.2	60.1
1884	34.7	48.3	49.6	55.2	68.7	72.3	76.8	75.4	74.7	63.7	46.9	41.6	59.0
1885	39.5	34.2	41.2	57.4	65.8	75.0	80.5	77.5	71.1	57.7	48.2	42.4	57.5
1886	34.7	38.2	48.2	59.3	63.9	73.2	77.1	75.7	72.0	58.8	49.4	36.6	57.3
1887	38.8	46.2	44.8	55.1	70.6	74.2	80.8	75.3	68.8	56.3	45.3	40.1	58.0
1888	37.7	43.1	45.7	56.5	66.8	75.4	76.6	79.0	69.0	55.2	51.7	40.2	58.1
1889	43.0	38.8	46.0	57.7	67.4	73.9	77.8	74.1	67.9	57.6	51.3	50.1	58.8
1890	50.4	51.1	47.2	58.2	68.3	77.3	75.6	74.2	70.3	59.2	50.3	39.1	60.1
1891	41.2	49.2	44.4	58.8	64.2	75.2	74.2	75.6	71.0	55.0	48.1	45.6	58.5
1892	39.2	42.4	45.2	56.0	68.4	77.3	77.6	78.9	69.8	57.9	47.5	33.4	58.2
1893	28.2	43.8	46.8	61.2	66.6	75.3	79.9	76.6	70.6	59.6	48.5	44.0	58.4
1894	42.8	43.4	54.3	56.8	69.8	76.2	79.3	75.6	73.6	60.1	47.6	42.3	60.0
1895	38.6	30.7	48.0	57.2	65.2	76.6	76.7	78.0	75.2	55.2	51.1	43.0	58.0
1896	38.0	42.7	47.2	62.2	73.4	75.0	80.0	77.6	69.4	56.1	52.9	38.3	59.4
1897	36.0	44.0	51.4	57.8	64.8	75.2	79.2	77.2	71.1	62.3	51.4	44.0	59.5
1898	44.9	39.4	55.2	55.2	69.3	76.6	80.8	80.4	74.5	60.8	45.5	40.2	60.2
1899	38.6	35.3	48.1	55.2	67.6	76.5	77.6	77.6	69.3	60.0	49.1	39.8	57.9
1900	38.6	37.2	44.4	56.4	66.8	75.2	80.8	82.4	74.5	63.8	52.0	39.6	59.3
1901	39.2	38.0	48.9	52.5	66.0	74.4	80.4	77.4	70.4	58.4	43.2	38.6	57.3
1902	36.4	33.4	49.9	55.4	67.6	74.4	79.5	75.4	68.6	61.6	54.0	40.2	58.0
1903	39.2	42.6	54.9	56.6	67.3	71.1	80.2	78.8	71.6	59.0	45.8	35.5	58.6
1904	34.4	34.4	48.3	55.6	67.8	75.8	78.0	77.5	71.6	58.6	46.5	37.3	57.2
1905	35.2	33.0	51.4	58.1	71.2	76.3	80.2	77.4	72.8	60.8	47.6	41.6	58.8
1906	43.4	39.6	44.2	61.0	68.2	78.0	79.0	81.3	76.2	60.6	50.0	41.7	60.3
1907	45.4	37.2	54.0	51.4	66.0	70.6	80.6	78.4	75.9	57.6	48.6	42.3	59.0
1908	39.0	38.6	53.8	62.0	69.8	75.8	80.2	76.2	70.8	61.5	50.5	42.9	60.1
1909	44.0	47.8	47.4	59.8	68.0	78.4	77.5	76.4	70.0	56.6	53.4	37.2	59.7
1910	39.2	40.0	55.6	60.4	66.7	73.8	80.4	78.0	75.0	63.8	44.2	35.9	59.4
1911	43.6	43.5	46.6	55.2	71.8	78.6	80.6	79.7	73.4	60.4	46.0	44.5	60.3
1912	30.8	36.0	46.6	60.1	67.2	72.6	77.2	77.0	73.8	60.0	47.8	43.1	57.7
1913	48.0	41.2	53.6	57.2	66.9	73.2	78.7	75.3	69.0	60.0	48.6	42.4	59.5
1914	42.8	35.8	42.7	56.6	67.6	76.2	77.8	78.6	69.2	62.4	47.3	38.0	58.0
1915	40.6	45.6	43.3	60.4	69.2	72.5	79.0	77.5	72.6	61.6	48.2	37.6	59.0
1916	45.7	40.2	45.8	56.6	71.0	73.6	78.6	78.6	69.4	61.4	49.9	42.0	59.4
1917	43.0	39.9	47.4	59.2	33.6	75.6	77.8	75.8	67.0	54.9	44.8	30.6	56.6
1918	28.9	43.0	53.0	55.6	71.8	73.0	74.2	78.6	65.8	63.2	48.9	43.8	58.3
1919	40.4	39.4	51.2	58.9	68.8	73.6	77.8	76.2	70.4	69.2	48.9	38.3	59.4
1920	35.6	36.2	48.6	57.6	62.3	74.1	75.7	75.6	72.2	61.8	47.4	41.2	57.4
1921	39.9	44.6	58.8	62.0	65.0	76.0	80.6	76.7	77.8	59.1	52.3	41.2	61.2
1922	36.3	44.3	51.0	61.1	71.2	78.6	80.4	76.2	73.8	62.6	48.8	45.5	60.8
1923	42.6	38.8	49.3	58.6	67.6	78.7	79.1	78.4	74.0	59.2	49.2	49.3	60.4
1924	40.9	41.4	47.0	58.2	67.6	77.0	77.0	78.7	68.4	61.2	51.8	44.0	59.4
1925	40.0	49.2	53.0	62.3	66.4	81.4	82.5	76.8	77.2	58.1	48.8	41.4	61.4



Mean Temperature at Weldon (continued)

Year	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Annual
1926	40.0	46.0	46.0	58.4	68.0	75.5	81.6	82.6	76.1	64.0	49.0	41.4	60.7
1927	40.2	50.5	52.9	58.2	71.2	74.4	79.7	75.8	73.6	63.4	54.9	43.5	61.5
1928	40.6	43.1	49.9	56.5	65.6	75.4	80.4	80.9	68.0	63.0	51.7	42.7	59.8
1929	41.4	39.4	54.6	61.3	66.8	72.8	76.8	75.6	70.1	57.6	51.0	41.6	59.1
1930	41.2	45.3	47.2	58.0	70.4	74.2	80.4	76.4	77.8	57.3	48.0	37.8	59.5
1931	39.4	42.4	42.8	55.2	66.0	74.4	81.2	76.0	74.6	61.2	54.0	49.0	59.7
1932	49.8	47.6	45.0	55.8	65.2	74.8	79.3	77.2	70.9	61.0	48.7	45.0	60.0
1933	47.7	44.1	49.4	58.4	72.2	76.8	77.5	78.4	76.9	60.2	47.4	46.8	61.3
1934	43.9	31.8	45.8	60.2	66.4	78.0	80.4	78.0	73.5	60.0	53.0	41.7	59.4
1935	41.2	43.6	57.6	56.4	67.2	78.0	80.1	78.9	71.4	61.8	55.1	35.0	60.5
1936	36.5	38.0	54.9	57.1	71.0	76.3	81.5	80.0	74.5	63.2	49.8	43.1	60.5
1937	51.0	41.8	47.5	59.6	69.6	79.1	80.2	80.0	69.1	58.6	48.0	40.6	60.4
1938	40.2	46.8	56.0	60.4	69.2	75.4	79.1	81.4	71.8	59.8	53.8	43.0	61.4
1939	43.6	49.0	53.2	59.8	69.0	80.6	78.3	79.0	74.0	63.0	46.6	42.4	61.5
1940	29.6	42.4	48.1	57.7	68.2	79.0	79.1	77.5	69.4	58.8	50.8	46.6	58.9
1941	40.2	38.0	44.7	63.0	71.0	76.2	81.0	79.4	75.4	68.4	51.4	45.8	61.2
1942	39.2	39.5	52.2	61.6	72.0	80.0	82.8	78.0	74.3	62.0	52.8	40.9	61.3
1943	43.4	44.5	50.2	58.8	72.0	82.8	80.8	80.1	69.6	59.0	49.4	40.9	61.0
1944	39.5	43.8	48.5	59.6	73.8	79.6	79.2	77.2	73.8	60.6	48.6	37.9	60.2
1945	38.0	44.6	61.4	64.0	65.3	78.2	80.0	76.9	76.5	59.8	54.0	37.8	61.4
Summary of Period 1921-45													
Max.	51.0	50.5	61.4	64.0	73.8	82.8	82.8	82.6	77.8	68.4	55.1	49.3	61.5
Min.	29.6	31.8	42.8	55.2	65.0	72.8	76.8	75.6	68.0	57.3	46.6	35.0	58.9
Mean	41.1	43.2	50.7	59.3	65.9	77.3	80.0	78.2	73.3	60.9	50.8	42.6	60.5
Summary of Record													
Max.	51.0	51.1	61.4	64.0	78.3	82.8	84.3	82.6	78.0	69.2	55.1	50.1	61.5
Min.	28.2	30.7	40.3	51.4	62.3	70.6	74.2	72.3	65.8	53.6	42.6	30.6	56.6
Mean	40.1	41.8	49.2	58.1	68.3	76.0	79.4	77.6	71.9	60.2	49.2	41.2	59.4

Highest Temperature at Weldon

Year	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Highest
1879		75	84	88	95	98	107	98	--	92	76	--	--
1880	70	81	83	90	100	103	104	95	97	87	76	72	104
1881	55	72	76	87	96	99	102	107	97	92	78	74	107
1882	69	72	76	85	90	99	100	92	94	82	82	60	100
1883	64	76	74	84	91	93	102	96	86	88	81	67	102
1884	61	74	77	82	93	94	97	92	95	95	76	70	97
1885	72	62	70	87	86	90	100	98	93	78	80	68	100
1886	63	68	79	89	88	94	93	95	92	83	78	66	95
1887	70	74	77	83	91	97	102	94	95	87	73	64	102
1888	72	73	76	91	91	96	98	101	94	77	80	66	101
1889	68	66	74	88	95	96	96	90	87	81	78	74	96
1890	75	78	78	85	87	98	96	93	92	84	78	63	98
1891	67	76	74	85	89	96	92	95	90	88	77	74	96
1892	66	65	73	84	92	98	98	96	87	85	78	70	98
1893	64	73	79	89	91	95	100	94	91	84	76	73	100
1894	67	72	87	85	95	96	96	95	94	85	73	70	96
1895	67	70	84	83	97	99	96	96	99	78	80	69	99
1896	59	69	77	94	97	93	99	101	96	78	78	63	101
1897	67	72	79	87	86	99	99	98	96	87	77	70	99
1898	75	68	88	87	92	100	97	96	93	84	74	67	100
1899	72	70	73	85	89	96	95	95	96	78	74	69	96
1900	65	69	71	80	90	93	100	99	97	86	78	67	100

Highest Temperature at Weldon (continued)

Year	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Highest
1901	71	67	73	73	87	92	96	91	90	79	75	71	96
1902	63	66	76	86	89	94	99	96	88	79	78	67	99
1903	64	69	77	85	92	89	99	101	94	88	82	60	101
1904	71	76	82	86	92	97	98	97	93	91	73	73	98
1905	69	56	83	88	93	98	98	100	93	90	77	67	100
1906	77	73	71	90	96	101	100	97	95	85	83	72	101
1907	80	66	96	86	92	93	98	95	98	86	79	70	98
1908	66	67	85	91	95	98	100	97	92	88	77	77	100
1909	77	76	79	89	94	95	97	99	92	86	81	69	99
1910	72	75	91	90	94	95	98	97	95	93	74	69	98
1911	76	75	77	85	98	105	104	101	88	91	76	71	105
1912	61	74	82	82	86	94	92	97	97	86	79	76	97
1913	75	75	80	84	90	95	99	92	89	80	78	70	99
1914	75	68	76	90	94	98	102	100	97	89	78	72	102
1915	69	77	68	96	93	95	99	99	93	85	80	70	99
1916	83	77	81	89	94	93	93	98	93	88	78	73	98
1917	71	79	78	95	97	100	98	97	93	86	74	66	100
1918	64	80	85	89	96	100	95	101	87	88	78	74	101
1919	68	70	80	88	97	93	97	94	93	94	85	75	97
1920	72	62	83	89	87	99	95	93	93	85	75	70	99
1921	75	76	90	92	93	101	99	101	101	87	82	76	101
1922	70	78	87	92	93	95	99	94	95	91	77	69	99
1923	72	74	82	86	89	100	99	98	93	82	70	72	100
1924	68	70	78	85	92	101	96	100	97	84	79	76	101
1925	64	82	84	97	98	99	102	100	99	90	72	67	102
1926	69	75	82	89	95	101	106	106	96	94	77	67	106
1927	71	80	86	92	100	98	102	95	99	92	80	80	102
1928	79	67	83	82	93	98	100	101	92	87	79	65	101
1929	70	71	88	94	89	95	97	95	92	81	82	74	97
1930	75	84	76	94	95	97	103	105	103	87	75	66	105
1931	69	67	63	83	88	97	101	96	98	92	81	80	101
1932	80	82	80	84	91	99	101	104	103	83	73	70	104
1933	73	73	81	84	94	103	100	97	96	92	82	74	103
1934	72	68	77	86	93	100	98	96	92	84	80	69	100
1935	74	72	88	88	91	99	98	102	94	88	84	67	102
1936	70	79	84	89	96	104	102	97	96	85	82	70	104
1937	76	73	76	90	97	99	103	95	93	85	72	68	103
1938	67	71	82	86	95	94	96	100	95	85	81	68	100
1939	71	76	85	87	96	99	95	97	97	91	72	69	99
1940	53	64	78	84	96	99	104	93	93	82	75	71	104
1941	67	57	70	93	102	96	100	101	98	97	76	72	102
1942	68	66	78	91	97	102	104	105	96	81	80	75	105
1943	77	76	82	91	94	102	99	102	98	84	76	75	102
1944	75	71	83	87	97	102	100	100	99	90	78	64	102
1945	58	69	93	91	91	105	101	95	94	83	83	64	105
Summary of Period 1921-45													
Max.	80	84	93	97	102	105	106	106	103	97	84	80	106
Min.	53	57	63	82	88	94	95	93	92	81	70	64	97
Mean	71	73	81	89	94	99	100	99	96	87	78	71	102
Summary of Record													
Max.	83	84	96	97	102	105	107	107	103	97	85	80	107
Min.	53	57	63	73	86	89	92	91	86	77	70	60	95
Mean	70	72	80	88	93	97	99	98	94	86	79	70	100



Lowest Temperature at Weldon

Year	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Lowest
1879		24	27	34	51	62	--	--	--	--	--	--	--
1880	--	--	--	--	--	--	66	64	48	40	18	-5	--
1881	12	15	27	32	53	62	64	60	62	35	21	22	12
1882	5	24	32	34	48	59	63	64	53	38	23	11	5
1883	6	26	22	32	44	57	62	54	52	45	20	18	6
1884	0	19	16	36	50	53	64	62	52	33	24	8	0
1885	15	10	10	34	48	62	62	58	44	37	29	22	10
1886	8	7	25	41	48	61	65	63	56	40	26	8	7
1887	10	22	29	32	52	54	64	56	40	34	25	14	10
1888	13	18	17	32	41	50	52	50	36	33	30	17	13
1889	17	11	24	32	39	50	59	56	42	32	24	20	11
1890	22	23	20	28	42	52	52	49	51	33	24	21	20
1891	19	21	23	29	34	55	54	56	49	30	16	13	13
1892	18	19	23	28	41	49	52	60	44	28	19	2	2
1893	-9	21	23	34	40	53	57	53	41	31	20	18	-9
1894	24	20	23	32	45	44	57	58	53	33	20	12	12
1895	10	3	26	32	40	50	59	56	48	30	28	20	3
1896	12	10	24	29	44	56	63	51	37	32	25	8	8
1897	10	21	26	27	38	51	60	60	40	37	24	18	10
1898	16	12	24	30	40	55	62	69	51	34	23	12	12
1899	8	-3	21	30	46	55	53	64	43	38	32	8	-3
1900	8	13	24	32	44	54	60	64	51	35	29	20	8
1901	21	11	14	38	48	57	68	65	51	37	20	12	11
1902	17	19	22	32	48	53	62	57	46	35	32	19	17
1903	20	17	32	30	43	50	59	62	42	28	16	15	15
1904	9	6	24	27	43	49	57	53	39	31	24	19	6
1905	13	11	21	29	45	50	61	52	42	32	15	19	11
1906	18	14	19	30	34	57	58	69	55	27	24	15	14
1907	14	15	25	28	41	48	57	57	43	29	25	20	14
1908	18	16	23	28	38	50	59	57	44	34	26	20	16
1909	19	19	26	29	38	58	54	51	39	28	22	13	13
1910	16	13	25	35	40	47	59	62	49	28	24	16	13
1911	22	22	20	29	43	55	57	59	49	41	25	23	20
1912	6	14	23	34	47	48	62	53	52	33	21	19	6
1913	26	16	24	32	36	50	56	57	43	29	23	21	16
1914	16	11	16	30	40	53	53	54	39	27	18	13	11
1915	21	21	23	27	49	53	56	58	45	33	23	20	20
1916	18	9	18	31	46	50	59	60	42	36	21	15	9
1917	15	4	26	29	39	51	60	53	41	26	20	-1	-1
1918	-5	10	25	28	36	49	50	54	39	32	24	17	-5
1919	15	16	27	24	47	51	49	51	45	41	21	16	15
1920	7	15	15	28	34	50	51	57	45	30	16	19	7
1921	16	20	27	27	39	46	58	50	54	26	21	18	16
1922	14	15	25	33	41	60	61	52	49	34	22	22	14
1923	19	15	23	22	38	57	60	54	44	37	24	23	15
1924	8	22	29	31	44	57	58	55	50	36	26	16	8
1925	16	24	17	36	40	58	61	54	52	28	24	10	10
1926	18	20	12	28	37	53	54	61	58	27	22	12	12
1927	10	27	12	28	45	52	56	55	45	35	24	13	10
1928	5	16	25	27	37	51	55	61	41	32	23	16	5
1929	17	15	18	31	41	45	53	51	42	34	15	11	11
1930	12	15	19	28	42	41	59	51	46	25	13	13	12

Lowest Temperature at Weldon (continued)

Year	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Lowest
1931	10	19	23	30	35	46	65	56	39	28	20	17	10
1932	22	21	16	29	38	46	55	52	48	33	21	13	13
1933	20	16	22	35	45	45	54	57	45	28	13	13	13
1934	5	5	16	34	42	57	61	49	52	28	22	18	5
1935	6	15	22	33	42	51	59	54	42	34	25	6	6
1936	5	0	29	29	45	51	57	59	49	31	20	21	0
1937	31	21	13	32	37	58	58	62	45	33	20	18	13
1938	16	24	27	33	49	43	57	59	45	38	20	18	16
1939	18	20	27	33	41	63	61	59	52	34	26	16	16
1940	0	13	20	30	42	53	55	59	45	31	23	17	0
1941	17	19	22	36	37	53	66	52	46	37	24	22	17
1942	4	15	27	32	46	59	66	52	39	32	23	7	4
1943	20	11	14	26	35	65	61	54	41	36	24	12	11
1944	2	18	21	29	44	57	56	53	49	32	25	18	2
1945	18	14	32	31	35	43	57	52	59	32	23	17	14
Summary of Period 1921-45													
Max.	31	27	32	36	49	65	66	62	59	38	26	23	17
Min.	0	0	12	22	35	41	53	49	39	25	13	6	0
Mean	13	17	22	31	41	52	59	55	47	32	22	15	5
Summary of Record													
Max.	31	27	32	41	53	65	68	69	62	45	32	23	20
Min.	-9	-3	10	22	34	41	49	49	36	25	13	-5	-9
Mean	13	16	22	31	42	53	58	57	46	33	22	15	25



## QUALITY OF WATER

The importance of water is not always realized, particularly when it is of good quality and is available in adequate quantity. Water of good quality and in adequate supply is essential for industry, agriculture, public and domestic purposes, and to all forms of life. The individual and specific requirements for water for numerous uses are many-fold. Data on the chemical quality of water are of value in providing needed technical information for specific purposes. This is of particular importance since unsuitable water may cause losses due to corrosion, deterioration of equipment, scaling of equipment, loss of flow, boiler failure, loss of heat transfer, silting of reservoirs, staining and discoloration of material, wasting of soap, poor quality of precessed foods, beverages, textiles, ice, bleaching, dying and tanning, loss of crops and good soil, deterioration of recreation facilities and property values, and destruction of fish and shellfish.

The Roanoke and Tar River Basins have ample rainfall and in general relatively insoluble surface soils and rocks. Most of the surface waters are soft and low in mineral content and are attractive to industries for many purposes. However, as industrial development and population increase, the quality of streams may become poorer since the streams are the receivers of the waste materials. The prosperity of a state is advanced through its water facilities and then checked if adequate planning is not maintained through the study of chemical quality of water to assure its most advantageous use through ever-changing industrial development, growth, modern conveniences, and manner of waste disposal.

For years the Water Resources and Engineering Division has realized the need of data on the chemical character of water for planned coordination in the most advantageous use of water for industry, public supply, agriculture, recreation and in the conservation of fish and wildlife. The study of the chemical character of water in the Roanoke and Tar River Basins was started in 1926. Several analyses of spot samples were made with other agencies cooperating with the Water Resources and Engineering Division, but these were scattered over the whole basin and for a period of several years. Among these cooperating agencies were the U. S. Geological Survey, the State Board of Health and Dr. E. E. Randolph of N. C. State College. In 1943 this Division made an agreement with the U. S. Geological Survey whereby a laboratory was set up on a permanent basin and a more concentrated study could be made. Two daily sampling stations were set up on the Roanoke River Basin. At these stations a sample was collected each day and a composite made every ten days and the analysis made of this composite. In addition to these several miscellaneous spot samples have been collected and analysed for several points in both the Roanoke and Tar River Basins.

Location.- At the water-supply intake of the Marshall Field and Company Karastan Rug Mill just downstream from bridge on State Highway 87 at Leakeville, Rockingham County, and 0.4 mile upstream from gaging station.

Drainage Area.- 1,150 square miles.

Records Available.- Chemical analyses: November 1944 to October 1945 - Water temperatures: November 1944 to October 1945.

Extremes, 1944-45.- Dissolved solids: Maximum, 47 parts per million September 1-10; minimum, 35 parts per million September 11-20.

Total hardness: Maximum, 17 parts per million November 1-10, 11-20, July 1-10, August 21-31, September 1-10; minimum, 12 parts per million January 1-10, July 21-31, September 11-20.

Water temperatures: Maximum, 87°F. July 1, minimum, 32°F. December 4, 15, 16, 18, February 1, 2, 3, 4.

(Analyzed by Geological Survey. Parts per million)

Date	Mean discharge (second-foot)	Temperature (°F.)	Suspended matter	Oxygen consumed		Color	Silica (SiO <sub>2</sub> )	Iron (Fe)	Calcium (Ca)	Magnesium (Mg)	Sodium (Na)	Potassium (K)	Bicarbonate (HCO <sub>3</sub> )	Sulfate (SO <sub>4</sub> )	Chloride (Cl)	Fluoride (F)	Nitrate (NO <sub>3</sub> )	Dissolved solids	Total hardness as CaCO <sub>3</sub>
				Unfiltered	Filtered														
Nov. 1-10, 1944	695	50	18	2.5	1.8	7	15	0.06	3.8	1.8	4.1	1.5	28	2.2	1.8	0.1	0.1	45	17
Nov. 11-20	670	48	11	2.1	1.7	11	15	.11	4.1	1.7	4.5		26	2.6	1.9	.1	.1	44	17
Nov. 21-30	1,193	41	91	3.3	1.8	3	13	.03	4.6	1.0	4.6		23	3.3	1.9	.1	.3	40	16
Dec. 1-10	1,157	36	36	2.6	1.7	7	13	.05	3.5	1.6	4.5		22	3.7	1.9	.1	.3	41	16
Dec. 11-20	1,485	34	64	3.2	1.7	2	13	.04	3.4	1.5	4.5		21	3.9	1.8	.1	.4	40	15
Dec. 21-31	881	37	17	1.7	1.3	1	14	.03	3.6	1.6	4.6		24	2.9	1.8	.1	.2	41	16
Jan. 1-10, 1945	2,591	38	192	5.4	2.6	9	11	.02	3.0	1.2	4.0	1.5	17	4.5	2.1	.1	.6	39	12
Jan. 11-20	1,555	38	26	2.4	2.0	7	12	.02	3.2	1.4	3.2	1.2	19	3.2	2.0	.0	.3	39	14
Jan. 21-31	1,005	39	12	1.6	1.2	3	14	.05	3.8	1.2	4.4		22	2.7	1.8	.1	.4	41	14
Feb. 1-10	871	34	14	1.4	1.2	7	15	.06	4.1	1.1	4.9		24	2.3	1.9	.1	.4	41	15
Feb. 11-19	2,340	45	176	6.3	2.4	2	12	.04	3.2	1.2	4.2		18	4.0	1.8	.1	.4	39	13
Feb. 20-28	2,370	45	94	3.4	1.4	5	11	.03	3.1	1.4	3.0		16	4.0	1.5	.1	.5	37	14
March 1-10	1,538	49	46	2.5	1.4	4	13	.03	3.4	1.5	3.3		19	3.4	1.6	.1	.4	40	15
March 11-20	1,095	54	56	2.4	1.2	5	14	.04	3.5	1.5	3.6		21	2.8	1.6	.1	.2	40	15
March 21-31	1,126	60	111	4.3	2.0	4	13	.01	3.5	1.7	3.9		23	2.6	1.6	.1	.2	41	16
April 1-10	948	60	27	2.4	1.6	10	15	.08	3.8	1.6	3.4	1.3	23	2.8	1.8	.1	.3	41	16
April 11-20	1,226	64	167	6.3	2.2	9	12	.03	3.6	1.3	4.8		22	4.0	1.6	.1	.2	41	14
April 21-30	1,395	60	140	4.6	1.8	7	13	.03	3.6	1.5	3.4		21	2.6	1.5	.1	.5	40	15
May 1-10	960	57	29	2.2	1.6	16	14	.15	4.0	1.5	4.3		24	2.6	1.9	.1	.4	45	16
May 11-20	1,009	65	204	5.6	1.7	2	13	.01	3.8	1.4	4.6		24	2.5	1.6	.1	.5	41	15
May 21-31	1,295	68	350	8.0	2.1	14	12	.04	3.2	1.3	4.5		20	3.3	1.6	.1	.9	41	13
June 1-10	792	67	51	2.8	1.6	12	14	.04	3.6	1.6	4.9		25	2.5	1.8	.1	.5	44	16
June 11-20	748	76	68	3.1	1.8	8	14	.01	3.7	1.6	4.6		25	2.4	1.6	.1	.4	46	16
June 21-30	613	76	84	3.7	2.0	2	14	.02	3.7	1.6	5.0		25	2.6	2.0	.1	.6	44	16
July 1-10	589	80	264	6.3	1.9	15	14	.02	4.3	1.5	3.0	1.3	24	2.8	1.6	.1	.8	44	17
July 11-20	726	74	322	4.5	2.3	9	14	.07	3.4	1.4	5.5		25	2.3	1.9	.2	.1	43	14
July 21-31	1,548	77	949	18	15	16	11	.04	2.9	1.1	4.0		17	3.1	1.5	.2	.6	42	12
Aug. 1-10	826	76	142	5.8	2.6	6	13	.03	3.4	1.3	4.1		21	2.8	1.5	.1	.4	42	14
Aug. 11-20	575	74	124	4.6	2.1	7	14	.01	3.8	1.6	4.1		24	2.6	1.6	.1	.3	43	16
Aug. 21-31	535	73	145	4.8	2.2	7	14	.03	3.9	1.7	4.2		25	2.7	1.5	.1	.2	43	17
Sept. 1-10	528	74	57	3.4	3.0	9	15	.02	4.0	1.7	5.0		28	2.3	1.5	.1	.2	47	17
Sept. 11-20	10,310	68	728	12	3.0	7	9.4	.02	2.9	1.2	3.3		15	4.1	1.2	.2	.7	35	12
Sept. 21-30	1,516	71	109	4.6	1.8	5	13	.02	3.4	1.5	4.2		21	3.3	1.6	.2	.5	41	15
Oct. 1-10	920	61	46	2.8	2.0	5	14	.01	3.6	1.5	4.4		23	2.8	1.6	.2	.2	40	15
Oct. 11-20	733	53	22	2.2	1.8	4	15	.06	3.6	1.6	4.7		25	2.3	1.6	.2	.1	41	16
Oct. 21-31	921	56	122	5.0	2.1	10	14	.02	3.6	1.5	5.0		25	2.6	1.6	.2	.1	41	15
Average	1,347	58	142	4.4	2.3	7	13	.04	3.6	1.5	4.3		22	3.0	1.7	.1	.4	41	15



ROANOKE RIVER NEAR SCOTLAND NECK, N. C.

Location.- At gaging station at bridge on U. S. Highway 256, 3 miles downstream from Bridgers Creek, and 5-3/4 miles northeast of Scotland Neck, Halifax County.

Drainage area.- 8,700 square miles.

Records available.- Chemical analyses: October 1944 to September 1945 - Water temperatures: October 1944 to September 1945.

Extremes, 1944-45.- Dissolved solids: Maximum, 173 parts per million April 1-10; minimum, 47 parts per million October 1-10.

Total hardness: Maximum 57 parts per million April 1-10, minimum, 18 parts per million October 1-10.

Water temperatures: Maximum, 85°F. July 3, 4, 6, 7, 8; minimum, 35°F. January 31.

(Analyzed by Geological Survey. Parts per million)

Date	Mean discharge (second-foot)	Temperature (°F.)	Suspended matter	Oxygen consumed	Color	Silica (SiO <sub>2</sub> )	Iron (Fe)	Calcium (Ca)	Magnesium (Mg)	Sodium (Na)	Potassium (K)	Bicarbonate (HCO <sub>3</sub> )	Sulfate (SO <sub>4</sub> )	Chloride (Cl)	Fluoride (F)	Nitrate (NO <sub>3</sub> )	Dissolved solids	Total hardness as CaCO <sub>3</sub>
Oct. 1-10, 1944	28,030	68	127	10	5.8	9.6	0.04	4.8	1.4	3.3	1.7	23	5.0	2.1	0.0	0.4	47	18
Oct. 11-20	5,002	63	43	3.8	2.7	15	.06	7.8	2.8	7.7		41	7.0	4.2	.1	.8	71	31
Oct. 21-31	17,350	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Nov. 1-10	4,896	56	23	3.7	2.4	15	.25	8.8	3.0	8.5		47	7.5	4.2	.1	.3	74	34
Nov. 11-20	4,486	51	16	3.2	2.2	14	.10	8.4	2.9	8.4		46	6.9	4.2	.1	.2	70	33
Nov. 21-30	8,150	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Dec. 1-10	13,230	40	56	5.4	3.1	14	.09	5.9	2.3	7.6		32	7.6	4.0	.1	.7	62	24
Dec. 11-20	11,250	39	51	4.5	2.6	14	.02	5.7	2.3	6.0		29	6.6	3.6	.1	.8	57	24
Dec. 21-31	6,456	38	17	3.1	1.8	14	.03	6.6	2.6	7.8		36	8.8	3.5	.1	.5	62	27
Jan. 1-10, 1945	17,190	39	82	7.1	3.8	13	.04	6.0	1.9	4.5	1.6	26	6.6	3.5	.0	1.4	54	23
Jan. 11-20	12,140	38	37	4.5	3.2	13	.07	6.2	2.1	5.6		27	7.1	3.8	.1	1.4	59	24
Jan. 21-31	7,709	37	32	3.2	2.1	15	.03	7.2	2.6	8.6		36	7.7	4.5	.1	4.1	72	29
Feb. 1-10	5,663	38	47	3.6	2.1	13	.04	7.0	2.4	8.4		36	8.3	4.2	.1	1.5	65	27
Feb. 11-19	16,870	37	206	15	14	13	.06	6.2	2.0	12	3.2	11	10	9.1	.2	.5	84	24
Feb. 20-28	22,300	40	87	20	16	11	.06	5.8	2.1	16	3.4	22	12	14	.2	1.1	95	23
March 1-10	14,110	44	22	3.4	2.2	8	.06	7.0	3.3	7.3		35	6.4	5.2	.0	5.2	69	31
March 11-20	8,340	44	36	18	20	13	.04	6.8	3.5	17	3.1	107	11	19	.2	.7	127	31
March 21-31	6,709	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
April 1-10	5,956	57	98	66	11	13	3.3	13	5.9	16	13	124	2.1	16	.2	.0	173	57
April 11-20	6,784	63	134	14	8.6	8.2	1.2	8.4	2.9	15	7.9	131	9.5	17	.2	.2	160	33
April 21-30	10,740	64	54	4.9	2.8	14	.04	6.3	2.4	9.8		40	6.2	3.5	.0	3.3	68	26
May 1-10	6,320	62	70	4.4	2.2	14	.03	7.3	2.8	6.5		39	5.9	3.6	.0	.7	63	30
May 11-20	6,660	65	169	6.3	3.0	13	.03	6.8	2.4	8.5		37	6.2	4.9	.1	1.6	65	27
May 21-31	11,730	72	214	8.0	3.9	12	.03	6.8	2.4	9.7		33	9.0	6.6	.2	2.0	75	27
June 1-10	4,764	76	174	8.0	3.2	14	.05	7.6	2.7	13		23	8.9	6.6	.1	.26	103	30
June 11-20	4,594	81	191	7.7	2.9	13	.03	7.8	2.8	11		44	6.7	4.9	.0	5.3	80	31
June 21-30	3,703	82	141	6.5	3.2	19	.02	7.1	2.5	7.9	2.2	41	6.8	4.4	.1	1.5	70	28
July 1-10	2,815	84	300	10	4.0	10	.02	6.4	2.2	6.0	1.7	33	7.2	2.9	.1	1.8	60	25
July 11-20	11,920	79	64	7.1	5.2	13	.04	6.0	2.1	6.1	2.1	31	6.5	4.2	.0	.7	64	24
July 21-31	11,870	81	168	8.8	5.3	11	.03	5.0	1.8	7.6		28	5.7	4.2	.1	1.8	60	20
Aug. 1-10	8,131	79	97	5.9	4.2	14	.02	6.8	2.4	9.1		34	8.1	5.4	.1	2.9	71	27
Aug. 11-20	4,760	79	168	9.2	3.8	13	.03	6.6	2.4	7.2		32	6.8	4.9	.1	1.8	69	26
Aug. 21-31	5,254	78	168	8.0	4.2	18	.02	6.3	2.4	7.9		36	6.1	4.1	.1	1.1	64	26
Sept. 1-10	3,123	81	56	5.8	3.8	17	.02	7.9	2.8	11		46	7.1	5.9	.1	.5	76	31
Sept. 11-20	17,160	76	216	11	6.2	8.6	.01	5.2	1.9	7.2		29	6.0	4.2	.0	.5	57	21
Sept. 21-30	49,540	73	77	8.1	4.8	12	.03	6.5	1.9	5.9		29	6.7	3.4	.1	1.4	58	24
Average	10,640	61	104	9.3	6.0	13	.13	6.9	2.5	9.7		41	7.3	5.9	.1	2.2	76	28

MISCELLANEOUS ANALYSES IN ROANOKE RIVER BASIN

Parts per million

Source and Location	Date of Collection	Suspended Matter	Silica SiO <sub>2</sub>	Iron Fe	Calcium Ca	Magnesium Mg	Sodium Na	Potassium K	Carbonate CO <sub>3</sub>	Bicarbonate HCO <sub>3</sub>	Sulphate SO <sub>4</sub>	Chloride Cl	Nitrate NO <sub>3</sub>	Total Dissolved Solids	Total Hardness CaCO <sub>3</sub>	Color	Turbidity	Alkalinity	Authority
Arm of Roanoke River near Weldon	9- 9-27	80	14	1.4	6.0	2.7	4.0	.9	0	23	6.8	6.2	1.0	66	26	24	95	20	Randolph U. S. G. S.
Dan River near Francisco	8-11-44	454	8.5	.07	2.6	1.1	2.7		0	16	1.9	1.0	.5	28	11	7	--	--	U. S. G. S.
Dan River at Lenoirville	8- 9-44	30	12	1.6	6.2	1.3	4.0		0	18	3.5	5.0	1.6	48	13	7	--	--	U. S. G. S.
Dan River near Madison	8- 3-28	93	38	1.6	7.0	3.0	3.76	2	0	36	3.7	3.0	.2	89.1	29.8	210	100	30	Bd. of Health
Dan River at Pine Hall	8- 3-28	120	42	1.2	7.0	2.3	4.5	3.4	0	40	5.34	2.5	.2	100	26.9	150	120	33	Bd. of Health
Dan River near Wentworth	10-23-44	129	12	.04	3.2	1.2	5.6		0	22	3.8	2.1	.2	40	13	7	---	---	U. S. G. S.
Mackeys Creek at Mackeys	12-12-44	10	16	.64	14	4.4	9.5		0	41	14	18	.2	168*	53	200	---	---	U. S. G. S.
Bridge at Mackeys	12-12-44	6	--	1.4	14	4.3	12		0	39	12	24	.1	---	53	200	---	---	U. S. G. S.
Mackeys Creek at Hwy. Bridge at Mackeys	6-29-44	11	10	1.5	12	3.5	11		0	50	5.4	16	.2	145**	44	228	---	---	U. S. G. S.
Mackeys Creek at Railway	6-29-44	16	10	1.1	12	3.5	8.6		0	45	6.0	14	.1	136***	44	171	---	---	U. S. G. S.
Mayo River near Madison	8- 3-28	128	41	1.2	7.2	2.4	4.77	2	0	36	3.2	3.25	.35	88.8	27.8	170	110	30	Bd. of Health
Mayo River near Price	8-10-44	71	14	.02	3.5	1.4	3.7		0	22	2.0	1.2	.6	40	14	4	---	---	U. S. G. S.
Roanoke River at Old Gaston	7-26-27	65	12.1	1.6	5.6	2.9	2.5	1.0	0	20.4	7.0	6.0	1.2	65.9	25.9	20	100	17	Randolph
Gaging station nr. Thelma	9- 9-27	86	13	1.0	6.1	2.6	8.5	1.0	0	25	6.2	12.5	.5	76.4	27	24	100	21	Randolph
Roanoke River at Weldon	8- 9-44	40	10	.06	4.7	1.8	4.0		0	26	3.2	1.6	1.1	43	19	7	---	---	U. S. G. S.
Smith River at Spray																			

PUBLIC WATER SUPPLIES IN ROANOKE RIVER BASIN

Finished

Parts per million

Source and Location	Date of Collection	Suspended Matter	Silica SiO <sub>2</sub>	Iron Fe	Calcium Ca	Magnesium Mg	Sodium Na	Potassium K	Carbonate CO <sub>3</sub>	Bicarbonate HCO <sub>3</sub>	Sulphate SO <sub>4</sub>	Chloride Cl	Fluoride F	Nitrate NO <sub>3</sub>	Total Dissolved Solids	Total Hardness CaCO <sub>3</sub>	Color	pH	Authority
Reidsville	1-25-28	---	8.0	0.41	5.3	1.4	1.3	---	---	15	6.0	0.4	---	---	---	---	---	---	Randolph
Warrenton (South Mill)	1-17-30	6.0	40.6	.068	16.0	5.2	12.3	2.5	---	66	21	7.5	---	.04	123	68	2.0	6.5	Bd. of Health
Weldon	9- 9-27	3	12	.6	5.2	1.4	4.2	.9	0	18	5.0	6.5	---	.4	54	19	12	6.9#	Randolph
Woodland (264 ft. well)	3-26-42	---	15	.06	.8	.7	79		0	200	9.1	3	---	.0	208	5	---	---	U. S. G. S.

\* Includes organic matter; sum of mineral constituents 97 parts.  
 \*\* Large proportion of organic matter; sum of mineral constituents 84 parts.  
 \*\*\* Large proportion of organic matter; sum of mineral constituents 77 parts.  
 # Raw water (average of daily determinations, August 1927).



TAR RIVER AT TARBORO, N. C.

Location.- At gaging station at bridge on U. S. Highway 64 at Tarboro, Edgecombe County, and 6½ miles downstream from Fishing Creek.  
 Drainage Area.- 2,100 square miles.  
 Records available.- Chemical analyses; October 1944 to September 1945 - Water temperatures: October 1944 to September 1945.  
 Extremes, 1944-45.- Dissolved solids, Maximum, 62 parts per million May 1-10, June 11-20; minimum, 45 parts per million February 20-28.  
 Total hardness; Maximum, 22 parts per million April 11-20; minimum, 11 parts per million October 1-10.  
 Water temperatures; Maximum, 84°F. July 2; minimum, 34°F. December 20, January 27, February 2, 3, 4.

(Analyzed by Geological Survey. Parts per million)

Date	Mean discharge (second-foot)	Temperature (°F.)	Suspended matter	Oxygen consumed		Color	Silica (SiO <sub>2</sub> )	Iron (Fe)	Calcium (Ca)	Magnesium (Mg)	Sodium (Na)	Potassium (K)	Bicarbonate (HCO <sub>3</sub> )	Sulfate (SO <sub>4</sub> )	Chloride (Cl)	Fluoride (F)	Nitrate (NO <sub>3</sub> )	Dissolved solids	Total hardness as CaCO <sub>3</sub>
				Unfiltered	Filtered														
Oct. 1-10, 1944	9,685	66	50	14	12	65	8.4	0.11	2.9	1.0	3.0	1.8	14	4.2	2.5	0.0	0.2	48	11
Oct. 11-20	969	60	17	8.6	6.2	40	15	.25	4.4	1.4	6.8		24	4.1	5.2	.0	.4	59	17
Oct. 21-31	2,097	54	44	10	7.1	60	15	.27	3.7	1.6	4.3		18	4.0	4.2	.0	.4	58	16
Nov. 1-10	816	53	9	7.6	5.5	51	18	.39	4.2	1.9	5.6		25	3.1	4.6	.0	.3	61	18
Nov. 11-20	956	51	9	6.5	4.7	28	17	.07	4.6	1.9	7.2		29	3.3	5.1	.1	.4	61	19
Nov. 21-30	1,714	--	--	----	----	--	----	----	----	----	----	----	--	----	----	----	----	--	--
Dec. 1-10	7,177	39	30	10	7.7	39	9.8	.04	3.0	1.3	5.2		14	6.2	4.0	.1	.4	50	13
Dec. 11-20	3,951	37	24	7.3	6.0	32	11	.03	3.0	1.3	5.1		14	5.5	4.5	.0	.4	48	13
Dec. 21-31	1,784	39	10	5.5	4.8	23	14	.02	3.6	1.4	6.4		20	4.7	4.9	.0	.6	52	15
Jan. 1-10, 1945	3,465	40	34	7.3	6.8	30	13	.10	3.6	1.4	5.1	1.4	19	5.1	4.6	.0	.5	52	15
Jan. 11-20	4,028	40	18	8.8	6.1	33	11	.05	3.2	1.3	5.8		17	5.3	4.4	.0	.5	49	13
Jan. 21-31	2,145	39	12	5.4	4.1	20	14	.04	3.8	1.4	5.8		19	4.7	4.8	.0	.7	50	15
Feb. 1-10	1,665	36	9	4.6	3.7	27	14	.26	3.8	1.5	7.3		24	4.2	4.9	.0	.8	54	16
Feb. 11-19	4,966	46	46	9.1	6.7	38	11	.17	4.1	1.2	5.7		19	5.4	4.1	.0	.8	52	16
Feb. 20-28	8,766	44	32	9.2	7.6	40	8.8	.09	3.0	1.2	4.7		14	5.8	3.4	.0	.5	45	12
March 1-10	6,262	50	23	8.8	6.9	38	9.2	.02	3.5	1.3	4.7		16	4.9	3.9	.0	.8	46	14
March 11-20	2,616	54	17	7.6	5.9	30	10	.04	4.0	1.8	5.0		21	4.1	4.4	.0	.7	49	17
March 21-31	1,686	62	9	7.3	6.5	56	12	.53	4.9	1.7	6.4		28	3.3	4.5	.0	.6	59	19
April 1-10	1,018	64	11	6.4	5.8	55	14	.67	5.2	1.9	6.3	1.7	33	3.0	4.2	.0	.6	60	21
April 11-20	887	66	11	5.0	3.8	16	15	.06	5.4	2.1	6.9		34	2.5	4.4	.0	.5	58	22
April 21-30	1,515	62	41	7.7	6.9	32	16	.07	4.8	1.9	6.4		29	3.5	4.0	.0	.9	60	20
May 1-10	887	60	15	6.0	5.2	39	16	.27	5.0	1.9	6.3		29	3.1	4.2	.1	.9	62	20
May 11-20	770	66	34	4.6	3.8	27	14	.11	5.0	1.8	7.2		31	2.8	4.5	.1	.7	56	20
May 21-31	2,634	68	59	7.5	5.2	28	13	.03	4.4	1.6	5.2		24	3.7	3.5	.0	.6	53	18
June 1-10	2,576	68	34	9.1	7.2	36	12	.05	4.1	1.5	4.6		20	4.6	3.4	.0	.5	55	16
June 11-20	763	78	21	4.8	4.6	37	16	.29	4.7	1.8	6.5		28	4.1	4.0	.0	.5	62	19
June 21-30	584	79	26	5.0	4.8	21	15	.04	5.0	1.9	7.1		30	3.6	4.2	.1	1.4	60	20
July 1-10	478	80	28	5.5	4.2	26	15	.04	5.5	1.8	5.6	1.7	29	3.9	3.1	.1	1.4	59	21
July 11-20	3,141	75	141	12	7.6	38	10	.02	3.6	1.4	3.7	1.4	17	4.3	3.1	.1	.7	51	15
July 21-31	9,355	76	53	13	12	58	9.0	.04	3.6	1.3	3.2	1.5	17	4.3	2.4	.0	.2	53	14
Aug. 1-10	5,950	75	58	13	11	63	10	.07	4.0	1.3	3.1	1.3	19	3.4	2.6	.0	.3	51	15
Aug. 11-20	2,812	74	46	12	9.9	45	13	.07	4.5	1.6	4.0		22	3.2	3.5	.0	.3	55	18
Aug. 21-31	2,523	74	33	11	7.8	37	14	.05	4.6	1.8	4.4		23	3.5	4.0	.0	.5	56	19
Sept. 1-10	1,231	74	22	6.2	5.2	28	16	.09	5.0	2.0	5.8		28	3.6	4.4	.0	.6	59	21
Sept. 11-20	6,571	73	49	12	9.8	58	11	.04	3.7	1.3	4.4		20	3.2	3.2	.0	.2	51	15
Sept. 21-30	14,950	73	17	13	11	63	9.5	.05	3.9	1.3	4.0		18	3.9	3.5	.0	.1	52	15
Average	3,403	60	31	8.3	6.7	39	13	.13	4.2	1.6	5.6		22	4.1	4.0	.0	.6	54	17

MISCELLANEOUS ANALYSES IN TAR RIVER BASIN

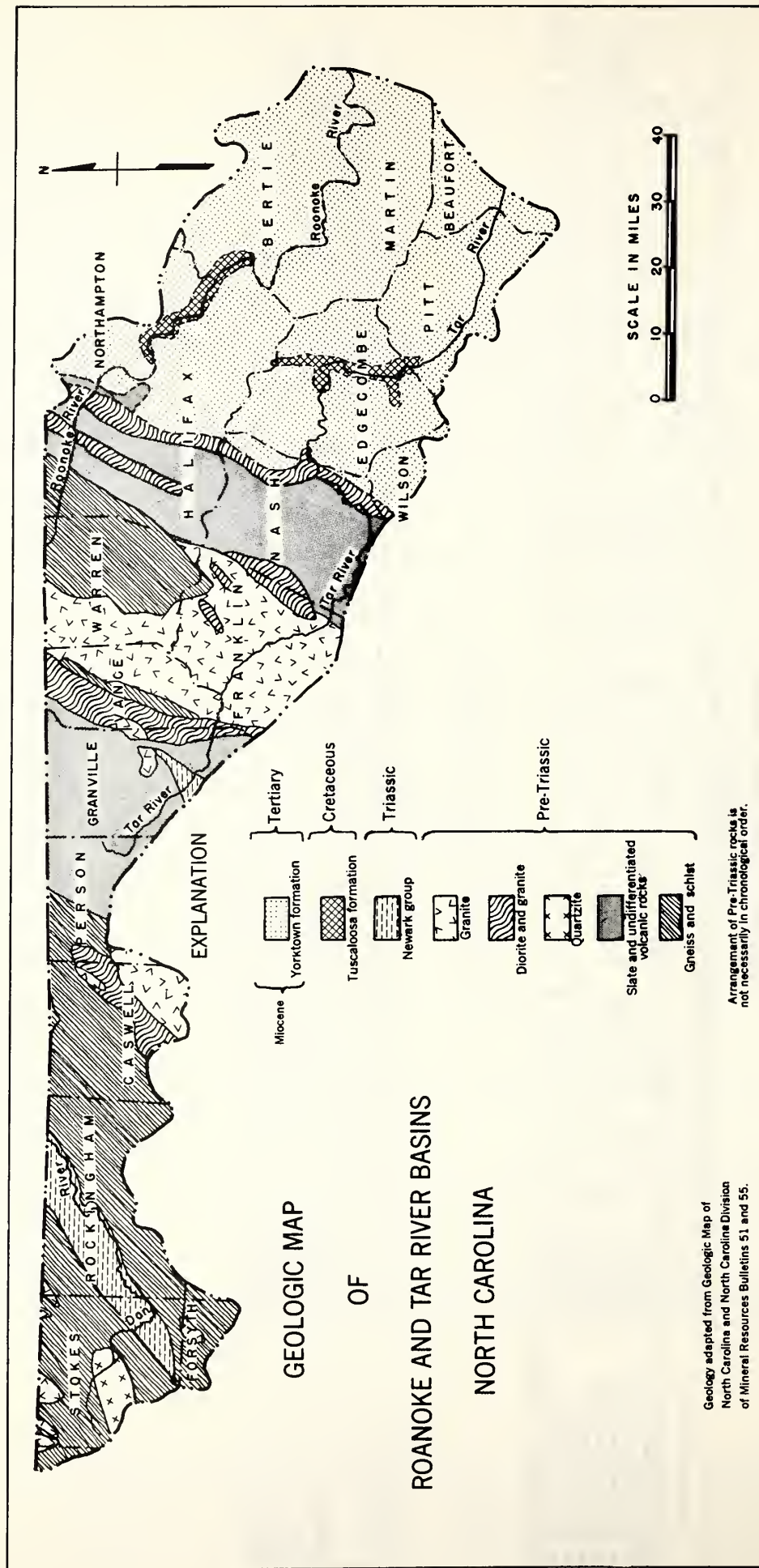
Source and Location	Date of Collection	Suspended Matter	Silica SiO <sub>2</sub>	Iron Fe	Calcium Ca	Magnesium Mg	Parts per million										Total Hardness CaCO <sub>3</sub>	Color	Turbidity	Alkalinity	Authority
							Sodium Na	Potassium K	Carbonate CO <sub>3</sub>	Bicarbonate HCO <sub>3</sub>	Sulphate SO <sub>4</sub>	Chloride Cl	Nitrate NO <sub>3</sub>	Total Dissolved Solids							
Fishing Creek near Enfield	7-11-44	36	16	0.03	5.8	2.2	5.5	0	34	2.8	2.8	.8	61	24	14	---	---	U. S. G. S.			
Tar River at Greenville	7-13-44	17	11	.13	5.4	1.8	6.5	0	26	6.6	4.5	.7	58	21	24	---	---	U. S. G. S.			
Tar River near Nashville	7-12-44	21	16	.03	4.0	1.6	6.5	0	29	1.8	3.6	.1	52	17	12	---	---	U. S. G. S.			
Tar River near Providence	7-26-27	106	20	2.3	7.2	3.9	10	1.5	36	17	7.0	1.3	110	34	30	225	30	Randolph			
Tar River at Rocky Mount	6-10-27	140	12	.4	2.5	2.0	4.2	0.8	0	14	6.3	5.0	0.6	60	15	30	225	11			
Tar River at Tarboro	7-12-44	17	14	.03	5.4	1.8	6.5	0	29	4.4	4.2	1.2	61	21	13	---	---	U. S. G. S.			
Tar River near Tar River	7-10-44	51	10	.03	6.4	2.6	5.3	0	37	3.2	2.8	.4	54	27	14	---	---	U. S. G. S.			
Tranter's Creek at Washington	2-28-29	2.8	4.5	.1	1.9	.21	5.9	0.8	3	3.8	9.0	.02	29	5.4	73	5	5	Bd. of Health			

PUBLIC WATER SUPPLIES IN TAR RIVER BASIN

Finished

Source and Location	Date of Collection	Suspended Matter	Silica SiO <sub>2</sub>	Iron Fe	Parts per million										Total Dissolved Solids	Total Hardness CaCO <sub>3</sub>	Color	pH	Authority
					Calcium Ca	Magnesium Mg	Sodium Na	Potassium K	Carbonate CO <sub>3</sub>	Bicarbonate HCO <sub>3</sub>	Sulphate SO <sub>4</sub>	Chloride Cl	Fluoride F	Nitrate NO <sub>3</sub>					
Greenville	8-12-27	9	13	.4	5.1	2.6	10	2.0	0	34	13	4.4	---	.6	86	23	8	5.9	Randolph
Harvey Point (Well No. 5)	11-15-43	---	29	.38	20	3.2	13		0	72	4.2	18	.1	1.8	132	63	---	---	U. S. G. S.
Oxford	6- 2-26	1	6.8	.38	6.2	1.8	1.6	.8	0	27	1.9	2.6	---	.15	49	23	9	---	Randolph
Rocky Mount	6-10-27	4.2	13	.3	3.7	2.1	5.1	0.8	0	19	5.6	6.0	---	0	57	18	10	6.0	Randolph
Rocky Mount	5-22-31	---	16	.04	4.2	1.6	11	.9	0	26	17	4.0	---	.20	71	17	---	---	U. S. G. S.





# Ground Water in the Roanoke and Tar River Basins, North Carolina

by H. E. LeGrand<sup>1/</sup>

## INTRODUCTION

The preparation of this section represents a part of a program of ground-water investigations in North Carolina which was begun in 1941 as a cooperative project of the United States Geological Survey and the North Carolina Department of Conservation and Development. The project is under the direction of Dr. A. N. Sayre, Geologist in Charge of the Ground Water Branch of the Geological Survey, and Dr. J. L. Stuckey, State Geologist of North Carolina.

Detailed field work, including the collecting of important hydrologic data and reconnaissance mapping of the geology, has been completed in 19 counties of the State and considerable information has been obtained in other areas. Publications of the Division of Mineral Resources, North Carolina Department of Conservation and Development, that have ground-water data on the Roanoke and Tar River basins include: Bulletin 47, Progress report on ground water in North Carolina; Bulletin 51, Ground water in the Halifax area, N. C.; Bulletin 55, Geology and ground water in the Greensboro area, N. C.; Bulletin 59, Flood-plain deposits of North Carolina Piedmont and Mountain streams as a possible source of ground-water supply; and Information Circular 3, Selected well logs in the Coastal Plain of North Carolina. These reports were prepared by M. J. Mundorff, former district geologist, U. S. Geological Survey. Bulletin 55 describes in some detail the ground water in the headwater parts of the Roanoke River basin lying in Forsyth, Stokes, Guilford, Rockingham, and Caswell Counties. Bulletin 51 describes in detail the following counties of the basin: Halifax, Nash, Northampton, Edgecombe, and Wilson. No detailed study of the ground water has been made of the remainder of the basins.

The Roanoke and Tar Rivers for the most part, flow eastward in consequence of the regional slope. These streams and their tributaries flow across many different types of rocks which, for convenience, may be divided into two large classes, the igneous and metamorphic rocks of the Piedmont province to the west and the sedimentary deposits of the Coastal Plain to the east. The igneous and metamorphic rocks of the Piedmont, underlying the headward parts of Roanoke and Tar River basins, have been exposed to weathering and erosion for long geologic ages. Consequently the topography is noticeably hilly. On the other hand, the deposits of the Coastal Plain were laid down in or near the sea and have in relatively recent geologic time been elevated above the sea. As the land was raised or the sea withdrew, the Tar and Roanoke Rivers extended their courses mouthward from the inner margin of the Coastal Plain to their present points of debouchment in the lagunal waters of the Atlantic Ocean. The short time these deposits have been exposed, in addition to their low initial relief, has resulted in little erosion. As a result the topography is that of a nearly flat coastal plain.

## GENERAL OCCURRENCE OF GROUND WATER

The source of ground water is precipitation. Some of the water falling on the surface of the earth enters and moves through the soil and rocks. The occurrence of water in the rocks of the Piedmont differs greatly from that in the deposits of the Coastal Plain. In the Piedmont, after penetrating the overlying soil, water moves largely through joints and fractures in the consolidated rocks. In the sedimentary deposits of the Coastal Plain the grains of sand, clay and lime are mostly uncon-

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solidated, and water moves through the pore space between the grains.

A part of the rain falling on the surface percolates downward through the earth until it reaches the zone of saturation, below which the pores and openings in the rock or sedimentary material are filled with water. The top of the zone of saturation is called the water table. In the basin area the water table may be only a few feet below the land surface in one place and many tens of feet in another place.

From the zone of saturation, or ground-water reservoir, water is continuously being discharged into streams, lakes, swamps, and the sea. The rate of discharge varies from time to time. This movement of ground water under the influence of gravity to lower points of discharge is more or less counterbalanced by a replenishment of water from precipitation and consequent influent seepage in the higher interstream areas.

Although the water table rises in response to an appreciable amount of precipitation, it may rise more at one time than at another with the same amount of rainfall. Thus the fluctuation of the water table is not a simple result of precipitation. The proportion of rainfall that becomes direct stream runoff, or that transpires, evaporates, or reaches the water table is determined by the duration and intensity of the rainfall, the character and condition of the surface material, and the air temperature, which affects the rate of evaporation and the rate of transpiration of water by vegetation. In North Carolina the water table generally declines during the summer and autumn even though the rainfall is heavy, because of the large amount of water lost by evaporation and transpiration. Although rainfall is generally less in the winter and spring, the water table rises because losses by evaporation and transpiration are greatly reduced.

#### GEOLOGY AND GROUND WATER IN THE PIEDMONT AREA

The Piedmont area of the Roanoke and Tar River basins includes parts or all of Stokes, Forsyth, Guilford, Rockingham, Caswell, Person, Granville, Vance, Franklin, Warren, Nash, and Halifax Counties. The rocks of this area include several types of granites, gneisses, schists, and slates of pre-Cambrian to Carboniferous (?) age, and consolidated sedimentary rocks of Triassic age. These rocks crop out in belts trending northeastward and extending, for the most part, at nearly right angles across the basin area. The areal geology of the Piedmont section of the basin is shown in figure 1. The geology as shown is greatly generalized in Person, Granville, Vance, Warren, and Franklin Counties but in the remainder of the area has been mapped in more detail by M. J. Mundorff. The age of most of the formations is not definitely known. The belt of consolidated sedimentary rocks in Rockingham and Stokes Counties and that in Granville County are of Triassic age.

The rocks of the Piedmont are nearly everywhere mantled by a zone of soil and weathered rock. This zone of residual weathered material is in some places only a few inches thick and in others several tens of feet thick, its average being about 25 or 30 feet. The material is generally composed of clay or sandy clay. Where the water table lies in the residual material - as it does in most places - wells may be dug below the water table and yet not penetrate hard rock. These dug wells are common in rural areas. Drilled wells pass through the weathered material and draw water from the joints in the rocks beneath. The term "joint" as used in this report includes any type of opening in the consolidated rocks, such as fractures and the openings along bedding, shear, and schistose planes. The wells that penetrate the most and largest joints generally yield the largest supplies of water if the water being pumped from the joints is substantially replenished by water passing through the residual material.

A great difference exists in the yields of individual wells in the Piedmont section, as the tables of well records show. The fact that two wells in the same general area of the Piedmont may differ greatly in their respective yields has led some people to believe that the location of a successful well is a matter of chance. An ever-increasing knowledge of factors controlling the occurrence of water in the igneous and metamorphic rocks of the Piedmont shows this not to be true, however. Factors to be considered in selecting a well site from the standpoint of quantity of water available include the amount and kind of jointing, the nature of parting planes as bedding, cleavage, and schistose, the presence of veins and dikes, topographic location, and thickness of the weathered material. Whereas all these factors are important they are not generally easy to evaluate, because they are related to the geology which may be largely concealed. Topography, however, may be appraised by any observer, and its importance justifies consideration. In the Greensboro area it was found that the average yield of wells drilled in topographic depressions is more than  $3\frac{1}{2}$  times greater than the average yield of wells drilled on hills.<sup>2/</sup> This condition is believed to prevail throughout the Piedmont section of the Roanoke and Tar River basins.

The chemical quality of ground water in the Piedmont area is, in most places, good. Owing to the prevalence of highly siliceous rocks which are relatively insoluble, most of the ground water is soft and low in mineral matter. Water derived from granite is normally low in dissolved mineral matter and seldom contains undesirable ingredients. This is also true of the mica gneiss and schist, although in some cases water from them may contain appreciable quantities of iron. Diorite and hornblende gneiss yield water rather high in mineral matter in some places in the area; the amount of calcium and magnesium is usually great enough to make the water hard. Water from the slates and associated volcanic rocks and that from the sediments of the Neward group contain as much as 250 parts per million of dissolved solids in some places although the norm has not been determined.

#### GEOLOGY AND GROUND WATER IN THE COASTAL PLAIN AREA

Counties partly or entirely within the Coastal Plain section of the Roanoke and Tar River basins include Halifax, Nash, Edgecombe, Wilson, Northampton, Bertie, Martin, Pitt, Beaufort, and Washington.

The formations of the Coastal Plain are of Mesozoic and Cenozoic age and consist of beds of unconsolidated and semiconsolidated sand, clay, and marl, and a few beds of limestone. They constitute a southeastward-thickening wedge overlying the hard consolidated sediments and crystalline rocks that form the subsurface extension of the rocks of the Piedmont. The formations occur as northeastward-trending belts, dipping at such a low angle to the southeast that they appear almost horizontal. The dip is slightly greater than the slope of the land surface, so that the older, underlying formations become buried progressively deeper toward the coast. The Fall line, an arbitrary zone marking the boundary between the Piedmont and the Coastal Plain, extends south-southwestward through western Northampton County and central Halifax and Nash Counties.

In the Coastal Plain section of the Roanoke and Tar River basins larger ground-water supplies are available more generally toward the south-east where the sediments are thick than toward the northwest where they are thin. Wells capable of yielding 600 gallons a minute or more have been drilled at several places. At no place has there been an overdevelopment of ground water.

<sup>2/</sup> Mundorff, M. J., Geology and ground water in the Greensboro area, N. C.: North Carolina Dept. Cons. and Devel. Bull. 55, p. viii, 1948.



The water in the northwestern half of the Coastal Plain area is generally soft and low in mineral matter; that in the southeastern half in many places is hard and high in mineral matter. Much of the water contains an appreciable amount of fluoride; some contains an objectionable amount of iron. Criteria are not available to predetermine the presence of iron. Salt water is found below depths of about 300 feet in the extreme southeastern part of the area. The temperature of the ground water ranges from about 61° to 64°F.

### Cretaceous Deposits (Undifferentiated)

Lying directly on the irregular surface of the basement crystalline rocks are the sedimentary deposits of Cretaceous age. They are covered by younger deposits and can be seen only along certain parts of Roanoke River in Halifax County and Tar River above Greenville in Pitt County. The base of these deposits slopes east-southeastward at the rate of about 40 feet per mile. The Cretaceous deposits thicken from a feather edge near the Fall Zone to almost 1,500 feet in the eastern part of the area discussed in this report. These deposits may be divided into two units both of which consist of sand and clays in a variety of combinations. The lower unit is composed of red, yellow, brown gray, and white sands and clays; the upper unit is composed of black or brown clays generally interlaminated with gray sand. Although clay predominates, one or more beds of water-bearing sand generally occur in the Cretaceous deposits. They form the most extensive and the best aquifers in the Coastal Plain section of the Roanoke and Tar River basins. They will yield several hundred gallons a minute at some places.

The water from the Cretaceous deposits in most places is soft and low in mineral matter. However, Mundorff<sup>1/</sup> has pointed out that water near the top of the Cretaceous deposits has considerable calcium and magnesium bicarbonates, owing to the action of carbon dioxide on the lime in the overlying deposits of Miocene age.

### Tertiary

Eocene deposits.- In the eastern parts of the Roanoke and Tar River basins sand and clay that probably are of lower Eocene age overlie the Cretaceous deposits. These deposits are characterized by large amounts of glauconite (or glauconitic sand and clay). They do not crop out and the area that they underlie is not accurately known. However, information from well records indicates that these Eocene deposits occur in Bertie and Martin Counties and possibly the adjoining counties to the north, south and east.

Individual zones of water-bearing sand in those deposits are capable of yielding several hundreds of gallons of water a minute to wells; additional quantities of water can be obtained by wells in which several of such zones were developed.

The water from these glauconitic deposits has a high fluoride content.

Miocene deposits.- The Yorktown formation, of upper Miocene age, is the most extensive formation in the Roanoke and Tar River basins. It underlies the entire Coastal Plain section of the basin area but is covered in much of the area by 10 to 20 feet of younger sediments. The dip is only 2 or 3 feet per mile to the east-southeast near the Fall Zone, and perhaps not more than 10 feet per mile in the same direction farther east. Its dip is about the same as the land slope, as a result of which shallow dug wells penetrate it almost everywhere. Its thickness varies from a few feet at the Fall Zone to slightly more than 100 feet in the eastern part of the area. The Yorktown formation consists of interbedded clays and sands, some shell beds occurring in the eastern part of the area.

<sup>1/</sup> Mundorff, M. J., Ground water in the Halifax area, N. C.: North Carolina Dept. Cons and Devel. Bull. 51, p. 26, 1946.

The Yorktown formation has no thick water-bearing bed to furnish large ground-water supplies in the western half of the Coastal Plain. Inasmuch as it is composed largely of clay, wells generally are drilled through the Yorktown to obtain larger supplies from the underlying strata. In the eastern part of the Coastal Plain, however, the Yorktown contains sand and shell beds that may yield more than 400 gallons a minute in some places. Although much of the water in the Yorktown formation is under slight artesian pressure, the water level ranges from a few feet to about 35 feet below the land surface, depending upon the topographic location. Owing chiefly to the presence of shell beds and the interstitial calcareous material in the sands and clay, the water in the Yorktown is hard in many places.

#### Quaternary deposits

A thin veneer of sand and clay, generally less than 15 feet thick, mantles the Yorktown formation in most places. These deposits have been divided into the Brandywine, Coharie, Sunderland, Wicomico, Penholoway, Talbot, and Pamlico formations of Pleistocene age. They extend from the Fall Zone eastward to the Atlantic Coast, but they are not shown on the geologic map because of their thinness. Many shallow dug wells in the eastern half of the Roanoke and Tar River basins obtain water from sands of this unit. Most drilled wells, however, pass into underlying strata where larger supplies are available. The water in the Pleistocene deposits is generally low in mineral matter although it locally contains objectionable amounts of iron.



Geologic formations in the Roanoke and Tar River basins

Age	Unit	Description	Water-bearing properties
Pleistocene*	Pamlico formation Talbot formation Penholoway formation Wicomico formation Sunderland formation Coharie formation Brandywine formation	Gravel, sand and clay. Formations not distinguishable on basis of lithology. 0 - 40 feet thick.	Yields small to moderate supplies to domestic wells. Most drilled wells extend through these deposits.
Miocene	Yorktown formation	Clays, sandy clays and shell marl; some beds of fine sand. 20 - 70 feet thick.	Adequate supplies for domestic uses. A few large supplies are obtained from screened or gravel-packed wells which penetrate clean sand. Water is generally hard.
Cretaceous	Undifferentiated	Clay, sand, and sandy clay. Although clay predominates, lenticular beds of coarse sand are common.	Highest yielding water-bearing formation. Water is usually soft and locally contains considerable iron.
Triassic	Newark group	Consolidated sedimentary rocks including shales, sandstones, mudstones, conglomerates, and arkoses.	Ground water moves through joints. Small yields suitable for domestic use at most places, but yields in excess of 25 gallons a minute available only at favorable locations. Water generally soft.
Carboniferous(?) to pre-Cambrian**	Granite, granodiorite, and diorite	Granite is light-gray massive or gneissic rock. Occurs as large homogeneous masses and as small lenticular bodies in other rocks.	Water occurs in joints. Massive granites on hills yield little or no water. Wells at favorable locations yield 30 to 50 gallons a minute. Water in granite low in mineral matter, but that in diorite may be high in mineral matter.

\*The formations of Pleistocene age are not shown on the geologic map of the area.

\*\*The arrangement of pre-Cambrian to Carboniferous (?) rock types is not in chronological order.

Geologic formations in the Roanoke and Tar River basins.--  
Continued

Age	Unit	Description	Water-bearing properties
Carboniferous(?) to pre-Cambrian	Slate and undifferen- tiated metamorphosed volcanic rocks.	Metamorphosed tuffs, lavas, and shales, ranging from light gray to dark green or blue in color. Bedding or schistose planes generally prominent.	Water occurs in joints. Adequate yields for domestic use. Yields vary from a fraction of a gallon to 75 gallons a minute from place to place. The water at most places is soft and at some places has a high iron content.
	Quartzite and schist	Chiefly quartzite and quartz- mica schist. Beds are tipped on edge.	Water occurs in joints, especially those along bedding planes. Yields small supplies of water at most places, generally less than 10 gallons a minute. Water usually soft and low in iron.
	Gneiss and schist	Quartz-mica gneiss and quartz- mica schist. Banding and schistosity generally well developed.	Water occurs in joints. Adequate yields for domestic use. Yields of 50 gallons a minute available at favorable loca- tions.



## PUBLIC GROUND-WATER SUPPLIES

### Piedmont area

Danbury, in Stokes County, is supplied water from three springs, emerging from quartzite and schist, northwest of town. The water is pumped into two concrete reservoirs having a combined capacity of 25,000 gallons. Untreated, it is distributed from the reservoirs by gravity.

Littleton, in Halifax County, obtains its water from a well 358 feet deep, which yields 75 gallons a minute. The water is not treated.

Milton, in Caswell County, is supplied from a well 312 feet deep drilled in gneiss and schist. The tested capacity of the well is 75 gallons a minute. The water is not treated.

Nashville, in Nash County, obtains water from two wells, one 239 feet deep yielding 300 gallons a minute, and the other 300 feet deep yielding 55 gallons a minute. The water, which comes from schist, is not treated.

Norlina, in Warren County, obtains water from a well in granite yielding 45 gallons a minute. The water is chlorinated.

Spring Hope, in Nash County, obtains water from two wells, 507 feet and 135 feet deep, yielding 155 and 80 gallons a minute respectively. The water is not treated.

Stoneville, in Rockingham County, obtains water from two wells penetrating Triassic shales. The wells are 8 inches in diameter, 190 and 189 feet deep, and yield 40 and 75 gallons a minute, respectively. The water is not treated.

Walnut Cove, in Stokes County, obtains water from a well 1,027 feet deep in Triassic sediments. The yield was reported to be 150 gallons a minute when drilled. The water is not treated.

Warrenton, in Warren County, is supplied water from two wells 537 and 551 feet deep, respectively. Each well yields more than 90 gallons a minute. Treatment consists of aeration, addition of lime, chlorination, and filtration.

Wentworth, a small unincorporated town in Rockingham County, is supplied by a well 588 feet deep in gneiss, yielding 30 gallons a minute. The water is not treated.

Yanceyville, in Caswell County, obtains water from three wells varying in depth from 100 to 183 feet in gneiss and in yield from 10 to 75 gallons a minute. The water is not treated.

Youngsville, in Franklin County, is supplied from a well 510 feet deep in granite, yielding 75 gallons a minute. The water is not treated.

## Coastal Plain area

Aulander, in Bertie County, is supplied water from a gravel-packed well 348 feet deep in the Yorktown formation. The well was tested at 510 gallons a minute with a drawdown of 53 feet. The water is not treated.

Battleboro, in Nash County, obtains water from a well 250 feet deep which was drilled through 139 feet of Coastal Plain sediments into granite. The well yields 25 gallons a minute. The water is not treated.

Bethel, in Pitt County, obtains water from the Yorktown formation through a gravel-walled well 383 feet deep. The well was tested at 600 gallons a minute with a drawdown of 50 feet.

Elm City, in Wilson County, is supplied water from two wells 187 and 210 feet deep, yielding 100 and 30 gallons a minute, respectively. The wells draw water from granite beneath a thin layer of sediments. The water is not treated.

Enfield, in Halifax County, obtains water from nine shallow gravel-walled wells between 23 and 40 feet deep. These wells, which end in Pleistocene deposits, yield a total of about 100 gallons a minute. The city also owns a well 350 feet deep ending in schist, which yields about 200 gallons a minute. The water is not treated.

Halifax, in Halifax County, gets its municipal water through two gravel-walled wells from the Yorktown formation. The wells yield about 30 gallons a minute each. The water is not treated.

Jackson, in Northampton County, gets its water from four wells 40 feet deep, or less, and one well 260 feet deep. The combined yield of these wells is about 70 gallons a minute. Treatment consists of the addition of sodium hydroxide.

Pinetops, in Edgecombe County, obtains its water from two wells 160 and 175 feet deep, respectively. The wells, ending in the Cretaceous deposits, yield about 75 gallons a minute each. The water is not treated.

Plymouth, in Washington County, is supplied by a well 155 feet deep, yielding 500 gallons a minute. The water contains 250 parts per million of chloride and 215 parts per million hardness. It is not treated.

Rich Square, in Northampton County, obtains water from two wells, 100 and 70 feet deep, yielding 140 and 120 gallons a minute, respectively. The water comes chiefly from sands of Cretaceous age. It is not treated.

Robersonville, in Pitt County, gets water from two wells 390 feet deep, which are capable of yielding a total of 1,000 gallons a minute. The water is not treated.

Scotland Neck, in Halifax County, gets its water from four gravel-walled wells, ranging in depth from 40 to 96 feet and in yield from 75 to 200 gallons a minute. The water comes from both the Yorktown formation and the underlying deposits of Cretaceous age. The water is not treated.

Washington, in Beaufort County, gets its water from about 22 wells ranging in depth from 50 to 170 feet and having a total yield of about 600 gallons a minute. A gravel-packed well 173 feet deep is capable of yielding 500 gallons a minute although it is not pumped at capacity. Treatment consists of the addition of lime, filtration, and chlorination.



Whitakers, in Edgecombe and Nash Counties, is supplied by 30 wells, yielding individually 18 to 40 gallons a minute and in aggregate about 90 gallons a minute. The wells are in three lines 50 feet apart and are spaced about 20 feet apart in each line. They are about 27 feet deep and are  $1\frac{1}{2}$  inches in diameter. Treatment consists of chlorination, aeration, addition of lime, sedimentation, and filtration.

Williamston, in Martin County, obtains water from three or four of its seven wells. They range in depth from 360 to 500 feet and in yield from 85 to 508 gallons a minute. The water comes largely from the deposits of lower Eocene age, at a depth between 110 and 420 feet, although some additional water comes from the overlying and underlying deposits. The water is not treated.

Windsor, in Bertie County, is supplied from three wells, ranging in depth from 325 to 350 feet and in yield from 75 to 300 gallons a minute. The water is not treated.

Analyses, in Parts per Million, of Water from Wells in the  
Piedmont Province of the Roanoke and Tar River Basins

(Analyzed by Quality of Water Branch, U. S. Geological  
Survey, Raleigh, N. C. Well numbers correspond to  
the numbers in the tables of well data)

Source	County	Well no.	Date	Sili- ca (SiO <sub>2</sub> )	Iron (Fe)	Cal- cium (Ca)	Mag- ne- sium (Mg)	Sodium and po- tassium (Na+ K)	Bicar- bonate (HCO <sub>3</sub> )	Sul- fate (SO <sub>4</sub> )	Chlo- ride (Cl)	Fluo- ride (F)	Ni- trate (NO <sub>3</sub> )	Dissolved solids	Total hardness as CaCO <sub>3</sub>
Caswell:		3	6/ 1/43	-	-	-	-	-	145	12*	28	0.5	30	-	154
		4	6/ 4/43	39	0.26	41	8.8	12	133	17	26	.1	.2	219	138
		7	6/14/43	31	1.3	95	40	21	304	76	85	.0	.3	544	402
		8	6/ 1/43	43	.01	14	5.7	9.8	54	4.0	17	-	9.0	141	58
		9	6/ 1/43	-	-	-	-	-	133	75*	15	.9	7.8	-	160
		10	6/ 3/43	-	-	-	-	-	116	2*	22	-	-	-	92
		12	5/31/43	-	-	-	-	-	54	4*	2.5	.0	.0	-	33
Rocking- ham:		1	6/17/43	-	0.06	-	-	-	53	1*	4	-	-	-	34
		4	7/ 7/43	-	.36	-	-	-	214	48*	16	-	-	-	202
		6	6/ 8/43	-	-	-	-	-	440	96*	32	-	-	-	480
		10	6/16/43	19	.02	22	2.9	17	104	11	5.0	-	.3	135	67
Stokes:		3	8/17/43	-	0.11	-	-	-	73	4*	8	-	-	-	64
		5	8/18/43	-	-	-	-	-	182	10*	44	-	-	-	202
		10	9/ 1/43	-	.13	-	-	-	28	3*	6	-	-	-	16
		11	8/31/43	-	-	-	-	-	368	8*	56	-	-	-	342
		15	8/13/43	-	.18	-	-	-	108	2*	8	-	-	-	90

\* By turbidity.



## Analyses.--Continued

Source County	Well no.	Date	Sili- ca (SiO <sub>2</sub> )	Iron (Fe)	Cal- cium (Ca)	Mag- ne- sium (Mg)	Sodium and po- tassium (Na+K)	Bicar- bonate (HCO <sub>3</sub> )	Sul- fate (SO <sub>4</sub> )	Chlo- ride (Cl)	Fluo- ride (F)	Ni- trate (NO <sub>3</sub> )	Dissolved solids	Total hardness as (CaCO <sub>3</sub> )
Granville:	1	6/ 6/50	31	.04	3.8	2.1	6.0	31	2.0	2.4	.1	.1	69	18
Franklin:	1 13	4/14/50 2/ 5/46	33 34	.02 .17	3.6 16	.9 5.8	9.2 9.8	20 91	.6 6.0	5.0 2.9	.2 .0	10 .1	77 118	13 64
Warren:	1 2 5	12/20/46 12/20/46 6/30/49	33 36 13	.43 .84 .05	14 16 3.8	6.3 4.6 1.4	15 22 17	- - 10	23 18 2.4	24 9.2 24	.1 .8 .0	.0 - 10	144 151 85	61 59 15

Analyses, in Parts Per Million, of Water from Selected Wells in the  
Coastal Plain Province of the Roanoke and Tar River Basins

(Analyzed by Quality of Water Branch, U. S. Geological Survey,  
Raleigh, N. C. Well numbers correspond to the numbers in  
the tables of well data)

Source County	Well no.	Date	Sili- ca (SiO <sub>2</sub> )	Iron (Fe)	Cal- cium (Ca)	Mag- ne- sium (Mg)	Sodium and po- tassium (Na+K)	Bicar- bonate (HCO <sub>3</sub> )	Sul- fate (SO <sub>4</sub> )	Chlo- ride (Cl)	Fluo- ride (F)	Ni- trate (NO <sub>3</sub> )	Dissolved solids	Total hardness as CaCO <sub>3</sub>
Halifax:	1	10/24/41	26	0.03	25	5.2	11	98	14	6	1.7	0.1	143	84
	2	10/28/41	-	-	-	-	-	28	*1	8	.2	16	-	33**
	3	10/17/41	16	.4	10	4.5	7.3	35	3.6	18	.2	1.1	9.4	43
	4	10/27/41	-	-	-	-	-	35	*1	3	.5	.0	-	22**
	5	11/ 6/41	21	8.1	13	3.8	20	70	9.9	16	.2	1.4	130	48
	6	4/ 5/43	11	.03	1.6	1.7	9.5	4.0	2.3	11	-	13	56	11
	7	11/ 7/41	26	.62	3.0	2.4	62	157	6.9	11	.2	.3	195	17
	8	10/29/41	21	2.8	63	22	164	259	202	126	.6	1.1	748	248
	9	10/27/41	-	-	-	-	-	76	*1	12	.5	3.5	-	60**
	10	10/29/41	-	-	-	-	-	26	*5	6	.4	-	-	20**
	11	10/30/41	17	.04	4.6	2.0	11	11	4.1	14	.3	12	78	20
	12	10/31/41	-	-	-	-	-	212	*1	3	.6	.0	-	152**
Nash:	2	11/19/41	-	1.8	7.7	1.5	6.7	18	12	9	0.0	0.0	73	25
	4	11/14/41	-	-	-	-	-	42	*1	4	.2	2.4	-	36**
	5	11/19/41	-	.23	50	9.0	52	258	6.4	.5	.2	.0	250	162
	6	11/19/41	-	.16	16	2.5	6.6	67	3.3	4	.2	.0	102	50
	10	11/19/41	-	.02	25	4.4	9.9	111	6.1	3	.2	.0	124	80
	13	11/ 9/43	22	.03	6.3	3.2	3.6	36	2.7	2.8	-	.5	59	29

Footnotes at end of table.



## Analyses.--Continued

Source County	Well no.	Date	Sili- ca (SiO <sub>2</sub> )	Iron (Fe)	Cal- cium (Ca)	Mag- ne- sium (Mg)	Sodium and po- tassium (Na+K)	Bicar- bonate (HCO <sub>3</sub> )	Sul- fate (SO <sub>4</sub> )	Chlo- ride (Cl)	Fluo- ride (F)	Ni- trate (NO <sub>3</sub> )	Dissolved solids	Total hardness as CaCO <sub>3</sub>
Edgecombe:	3	1/15/42	-	-	-	-	-	228	*5	4	.6	-	-	**24
	4	4/8/43	31	.40	21	5.2	24	138	6.0	4.5	-	.1	160	74
	7	1/15/42	-	-	-	-	-	179	*2	5	.4	.0	-	**114
	13	12/9/41	34	.0	24	4.7	14	116	7.8	4	.4	.10	139	79
Wilson:	1	1/30/42	27	.0	36	8.1	31	190	20	10	.1	.0	220	124
Northampton:	1	3/28/42	-	-	-	-	-	148	54	3	.1	.25	-	132
	5	2/26/42	22	.20	5.7	1.7	7.0	26	9.1	4	.0	.0	55	21
	12	3/26/42	-	-	-	-	-	9	*1	10	.0	.14	-	**27
	13	3/26/42	-	-	-	-	-	3	*1	71	.1	.79	-	**74
	14	3/28/42	40	1.2	2.4	1.0	9.5	24	4.1	2	1.3	.75	86	10
	15	3/26/42	-	**18	-	-	-	31	*1	11	.0	.0	-	**21
Bertie:	1	7/17/42	16	0.02	2.9	2.6	255	432	66	100	3.0	1.0	670	18
	3	9/28/43	-	-	-	-	-	185	4	4	-	-	-	70
Martin:	1	10/15/47	17	.50	1.8	2.7	326	368	63	250	1.5	1.2	872	16
	2	5/20/48	-	-	-	-	-	365	-	118	1.8	-	-	10
	5	2/16/48	23	.43	1.4	1.6	162	401	8.4	16	0.9	.4	420	10
	6	2/16/48	22	.39	2.0	3.7	386	444	156	235	0.9	.2	1047	20
	7	11/22/43	-	-	-	-	-	258	1	5	0.3	-	-	147
	8	11/22/43	-	-	-	-	-	165	9	3	0.2	-	-	128
	9	11/24/43	-	-	-	-	-	387	2	3	0.9	-	-	22
	10	11/24/43	-	-	-	-	-	362	-	3	0.8	-	-	74
	11	11/29/43	-	-	-	-	-	279	1	4	0.3	-	-	111
	13	11/22/43	-	-	-	-	-	275	1	3	0.5	-	-	150
	14	11/24/43	-	-	-	-	-	318	2	2	0.7	-	-	15

Analyses.--Continued

Source County	Well no.	Date	Sili- ca (SiO <sub>2</sub> )	Iron (Fe)	Cal- cium (Ca)	Mag- ne- sium (Mg)	Sodium and po- tassium (Na+K)	Bicar- bonate (HCO <sub>3</sub> )	Sul- fate (SO <sub>4</sub> )	Chlo- ride (Cl)	Fluo- ride (F)	Ni- trate (NO <sub>3</sub> )	Dissolved solids	Total hardness as CaCO <sub>3</sub>
Pitt:	1	11/17/43	-	-	-	-	-	306	2	8	1.3	-	-	88
	2	11/30/43	-	-	-	-	-	240	5	6	0.1	-	-	198
	5	11/17/43	-	-	-	-	-	340	80	160	-	-	-	14
	7	11/17/43	-	-	-	-	-	280	2	4	0.6	-	-	86
	8	11/17/43	-	-	-	-	-	388	12	14	1.1	-	-	66
	9	11/17/43	-	-	-	-	-	186	58	28	1.7	-	-	27
	10	10/21/42	-	-	-	-	-	270	110	190	1.0	.4	-	24
	11	7/11/49	13	.36	7.4	.9	10	25	6.2	11	0.1	1.7	64	22
	1	7/17/42	-	-	-	-	-	350	16	104	0.7	1.2	-	168
	3	5/18/48	-	4.4	-	-	-	293	1	17	0.3	.1	-	174
	8	12/ 4/43	-	-	-	-	-	252	2	5	0.2	-	-	192
	10	11/18/43	-	-	-	-	-	318	1	11	0.3	-	-	216
Beaufort:	1	7/17/42	-	-	-	-	-	350	16	104	0.7	1.2	-	168
	3	5/18/48	-	4.4	-	-	-	293	1	17	0.3	.1	-	174
	8	12/ 4/43	-	-	-	-	-	252	2	5	0.2	-	-	192
	10	11/18/43	-	-	-	-	-	318	1	11	0.3	-	-	216

\*By turbidity.

\*\*Soap hardness.

\*\*\*Iron in sediment.

## Records of wells in the Piedmont province

## Stokes County

Well no.	Location	Owner	Driller	Depth (feet)	Diameter (inches)	Depth of casing (feet)	Yield (gallons a minute)	Aquifer
1	Ashbury	S. P. Joyce	Frank Christian	213	6	53	5	Granite
2	Francisco	Sam Moir	Will Lovell	90 $\frac{1}{2}$	6	-	2	Gneiss
3	3 mi. W. of Sandy Ridge	A. Schurman	Well Drillers, Inc.	97	6	-	14 $\frac{1}{2}$	Schist
4	1 $\frac{1}{4}$ mi. SW. of Prestonville	J. R. Carter	do.	71	6	-	-	Do.
5	3 $\frac{1}{2}$ mi. NW. of Danbury	J. H. Nelson	C. H. Davis	700	5 5/8	-	1/3	Schist and quartzite
6	1 3/4 mi. N. of Gap	John Bowles	Bill Bishop	110	4	-	3	Schist
7	5 mi. S. of Francisco	K. C. Smith	Will Lovell	136	6	-	2	Gneiss
8	1 $\frac{1}{2}$ mi. S. of Capella	A. T. Tillotson	Well Drillers, Inc.	103	6	-	5	Schist
9	1 3/4 mi. SE. of Capella	Wallace Webster	Will Lovell	93	6	-	5+	Gneiss
10	2 mi. NE. of Mtn. View	J. C. Ferguson	Well Drillers, Inc.	101	6	17	-	Do.
11	3 $\frac{1}{4}$ mi. NE. of Mtn. View	L. J. Carroll	do.	125	6	16	8	Do.
12	1 $\frac{1}{2}$ mi. N. of Meadows	Prison Camp No. 806	C. H. Davis	160 $\frac{1}{2}$	6	-	17 $\frac{1}{2}$	Do.
13	1 $\frac{1}{2}$ mi. W. of Pine Hall	Pine Hall Brick and Pipe Co.	-	75	5	-	5+	Shale (Triassic)
14	Walnut Cove	Town do.	-	811	10	-	(?)	Triassic
15	Do.	do.	Va. Mach. and Well Co.	1027	10	-	150	Do.



## Records of wells in the Piedmont province.--Continued

## Forsyth County

Well no.	Location	Owner	Driller	Depth (feet)	Diam-eter (inches)	Depth of casing (feet)	Yield (gallons a minute)	Aquifer
1	4 mi. E. of Rural Hall	Memorial Industrial School	M. A. Holder	150+ <u>—</u>	6	—	10	Gneiss
2	4 mi. SE. of Rural Hall	R. L. Clayton	Well Drillers, Inc.	90	6	—	3	Do.
3	4½ mi. SE. of Rural Hall	W. M. Scott	J. R. Cummings	500	6	40+ <u>—</u>	10	Do.
4	5 mi. SE. of Rural Hall	Alvin Crowder	Well Drillers, Inc.	123	6	90	5	Schist
5	5¼ mi. SE of Rural Hall	N. E. Brewer	do.	137	6	—	10	Gneiss
6	4 mi. S. of Belew Cr.	N. F. Von Hoy	J. R. Cummings	40	6	20	2 ¼	Do.
7	2¼ mi. S. of Belew Cr.	H. T. Lewis	do.	126	6	35+ <u>—</u>	25	Do.
8	1-mi. NE. of Walker-town	John H. Clement	do.	147	6	40 <sup>—</sup>	4-5	Do.
9	Walkertown	School	M. A. Holder	200	6	—	15	Do.
10	Do.	do.	do.	453	5 5/8	—		Do.

## Records of wells in the Piedmont province.--Continued

## Rockingham County

Well no.	Location	Owner	Driller	Depth (feet)	Diameter (inches)	Depth of casing (feet)	Yield (gallons a minute)	Aquifer
1	Stoneville	Town	Carolina Drilling Co.	189	8	-	75	Slate (Triassic)
2	Spray	Marshall Field & Co., Woolen Mill	-	195	6	-	9	Triassic
3	Do.	G. M. Lamar	Danville Well Co.	125	6	75	6	Do.
4	Do.	Morehead Mills Co.	-	205	6	-	-	Shale (Triassic)
5	2 3/4 mi. SE. of Leaksville	F. L. Anderson	John Hopkins	68	6	-	10	Gneiss
6	Draper	Mrs. Hope Flinchum	Danville Well Co.	105	6	-	30	Shale (Triassic)
7	Do.	Marshall Field & Co.	Carolina Drilling Co.	150	6	-	50	Do.
8	1 1/4 mi. SW of Lawsonville	Bernis Walker	?	165	6	-	3	Gneiss
9	Reidsville	Edna Mills Corp.	-	160+	6	-	30	Do.
10	Wentworth	County	D. M. Hanlon	588	6	-	30	Do.
11	1 mi. N. of Intelligence	C.H.H. Martin	?	62	6	-	4	Do.
12	Intelligence	Intelligence School	Danville Well Co.	150	6	-	18	Do.
13	2 3/4 mi. W. of Madison	H. R. Closson	J. Stafford	334	2	-	5	-
14	4 mi. S. of Ellisboro	Huntsville School	Danville Well Co.	350	8	-	8	Gneiss

## Caswell County

Well Location no.	Owner	Driller	Depth (feet)	Diam- eter (inches)	Depth of casing (feet)	Yield (gallons a minute)	Aquifer
1 Pelham	School	?	100	6	-	15	Schist
2 1 mi. S. of Providence	do.	H. L. Heater	100	6	-	15	Schist
3 3 mi. NE. of Providence	L. A. Goodson Dairy and W. L. Neal Town	Danville Well Co.	140	6	-	3	Gneiss
4 Milton	Mrs. Ella Y. McAden	do.	312	6	-	75	Do.
5 Semora	School	E. A. Ingold	100	6	-	18	Do.
6 Leasburg	U. S. Defense Plant Corp., Pipe Line Co.	Va. Machine & Well Co.	100	6	-	8	Granite
7 4 mi. SW. of Leasburg	C.C. Cole and McSwain	Danville Well Co.	485	8	-	55	Greenstone
8 Yanceyville	Yanceyville Sanitary District	-	103	6	60	15±	Gneiss
9 Do	J. M. Baynes	-	400	8	-	12	Do.
10 2 mi. E. of Anderson	-	-	27	24	-	-	Granite
11 3 mi. E. of Hightower	C. L. Long	Muse and Clark	76	6	-	-	Do.
12 2 3/4 mi. N. of Prospect Hill	W. L. Compton	Danville Well Co.	140	6	120	10	Do.
13 1 1/4 mi. N. of Prospect Hill	High School	?	100	6	-	12	Do.



Records of wells in the Piedmont province.--Continued

Person County								
Well no.	Location	Owner	Driller	Depth (feet)	Diameter (inches)	Depth of casing (feet)	Yield (gallons a minute)	Aquifer
1	Roxboro	Country Club	Danville Well Co.	75	6	-	11	-
2	Near Concord	H. M. Barker	do.	158	6	-	10	-
3	Roxboro	R. A. Gentry	Heater Well Co.	75	6	39	2	-
4	Woodsdale	W.M. Woody	do.	158	6	28	-	-
5	Roxboro	Harry Lockhart	do.	75	6	16	5	Slate
6	Do.	John Yarborough	do.	130	6	7	0	Do.
7	Do.	Dr. J. H. Hughes	do.	77	6	76	15	-
8	Do.	G. B. Bullock	Danville Well Co.	53	6	-	10	-
Granville County								
1	Oxford	Prison Camp 504	-	180	8	-	10	-
2	Do.	L. D. Blalock	Heater Well Co.	60	6	26	5	Granite
3	Do.	Mrs. L. A. Breedlove	-	82	5	52	10	-
4	Do.	W. W. Crews	-	83	5	79	2½	Granite
5	Do.	Mrs. S. G. Hester	-	48	5	12	10	Do.
6	Do.	E. L. Smith	-	100	6	13	5	-
7	Bullock	Thomas Royster	-	24	6	21	4	-

## Records of wells in the Piedmont province.--Continued

Vance County								
Well No.	Location	Owner	Driller	Depth (feet)	Diameter (inches)	Depth of casing (feet)	Yield (gallons a minute)	Aquifer
1	Townsville	Mrs. Henry Burwell	Heater Well Co.	61	6	56	15	Granite
2	Do.	G. C. Kester	do.	60	6	34	20	Do.
3	Do.	do.	-	122	6	118	8	-
4	Kittrell	Concord Church	-	30	6	6	10	Granite
5	Do.	Mrs. Fred Finch	-	30	6	2	15	Do.
6	Henderson	F. W. Morgan	Heater Well Co.	75	6	41	9	Do.
7	Do.	Mrs. J. H. Parker	-	56	6	26	0	Do.
8	Do.	J. D. Cooper	-	112	6	32	20	Do.

Warren County									
Well No.	Location	Owner	Driller	Depth (feet)	Diameter (inches)	Depth of casing (feet)	Yield (gallons a minute)	Aquifer	Remarks
1	Warrenton	Town	Virginia Machine & Well Co.	393	10	120	90	-	Static level 17 feet; pumping level 70 feet.
2	Do.	do.	do.	551	10	27	100	-	Static level 23 feet; pumping level 70 feet.
3	Do.	do.	Sydnor Well & Pump Co.	537	8	53	110	-	Drawdown of 120 feet.
4	Manson	E. N. Park	Heater Well Co.	60	6	40	5	Granite	
5	Norlina	Town	-	52	6	52	45	do.	

## Records of wells in the Piedmont province.--Continued

Franklin County								
Well No.	Location	Owner	Driller	Depth (feet)	Diameter (inches)	Depth of casing (feet)	Yield (gallons a minute)	Aquifer
1	Bunn	Highway Prison Camp	-	49	6	-	5	-
2	do.	do.	Heater Well Co.	250	6	30	6	-
3	do.	R. I. Mitchell	do.	89	5	56	20	-
4	do.	O. V. Lee	-	108	5	94	10	-
5	Louisburg	G. R. King	Heater Well Co.	138	6	-	4	-
6	do.	Louisburg Lumber Co.	do.	200	6	20	4	Granite
7	do.	Roy Overton	do.	100	6	51	20	Do.
8	Pilot	Pilot School	do.	128	6	126	-	Do.
9	Franklinton	P. P. Purnell	do.	81	6	73	10	-
10	do.	Mrs. Fletcher Harris	do.	81	6	63	1	Granite
11	do.	Nelly Brown	do.	102	6	90	5	-
12	do.	Town	do.	510	6	(1/)	2	Granite
13	do.	do.	do.	245	6	-	75	Do.

1/ Static level, 20 feet.



## Records of wells in the Coastal Plain province

Halifax County							
Well	Location	Owner	Depth (feet)	Diameter (inches)	Yield (gallons a minute)	Aquifer	Remarks
1	Littleton	Town	358½	8	120	Gneiss	Cased 40 feet. Temperature 63°F. Tested 100 gallons a minute with 43-foot drawdown.
2	Roanoke Rapids	C. T. Johnson	65	4	100	Schist	Cased to 55 feet. Water reported to come from below quartz vein.
3	do.	Colonial Ice Co.	140-190	8-6	10	do.	Diameter of five wells in group are 8 inches; four, 6 inches; four in use; 10 gallons a minute from each.
4	Aurelian Springs	School	87	6	10	Granite	Cased to 40 feet. Main supply.
5	Halifax	Town	135	6	31	Sand (Cretaceous)	Gravel packed to 110 feet. Water contains too much iron for use.
6	do.	do	51	6	15	Sand (Yorktown)	Gravel-packed; temperature 61°F.
7	Tillery	Caledonia State Prison Farm	216	4	75	Sand (Cretaceous)	Reported to have flowed 30 to 35 gallons a minute when completed in 1926. Was yielding 60 gallons a minute with the pumping level 17 feet below the surface in February 1942.
8	Enfield	Town	350	10-8	200	Schist	Cased to 90 feet.
9	Hollister	Hollister Grade School	150	4	-	do.	Reported good yield.
10	Enfield	Lawrence Whitaker	225	4	4	Rock(?)	
11	Scotland Neck	Town	96	18	200	Sand (Cretaceous)	Gravel-packed well; drawdown 55 feet. Test well drilled to 215 feet.
12	Hobgood	L. F. Whitehurst	100	4¾	10	Sand (Cretaceous)	Reported drawdown 10 feet.

Nash County							
Well no.	Location	Owner	Depth (feet)	Diameter (inches)	Yield (gallons a minute)	Aquifer	Remarks
1	Whitakers	Mrs. J. C. Braswell	187	6	-	Granite	Not in use since town system was installed.
2	do.	Town	27½	1½	18-40	Sand (Sunderland)	Battery of 30 wells in field. Combined yield 90 gallons a minute on 36-hour test.
3	Castalia	Castalia School	110	6	8-10	Granite	Cased to 75 feet. Maximum yield is 10 gallons a minute.
4	Red Oak	John Griffin	144	6	20	Schist (?)	Cased to 107 feet. "Soft rock"; temperature 61.5°F.
5	Battleboro	Battleboro Cotton Oil Co.	140	6	25	Granite	Cased to 138 feet. Connected with town water system.
6	Nashville	Town	239.3	8	300	Schist	Cased to 15 feet; diameter 10-inch
7	do.	do.	300	10	55	do.	hole to 200 feet; 6-inch to 300 feet.
8	do.	State Prison Camp	117	6	44	do.	Cased to 79 feet. Water comes from fractured quartz veins in schist.
9	Spring Hope	Spring Hope Oil Mill	120	4	30	do.	Cased to 60 feet. Has always been adequate.
10	do.	Town	507	6	155	do.	Cased to 237 feet. Main supply.
11	do.	do.	135	10	80	do.	Cased to 90 feet. Auxiliary supply.
12	do.	Webb Mill Co.	66	6	7	Slate and schist	Cased to 43 feet. Water contains very little iron.
13	Samaria	Ferrells School	160	6	10	Schist	Cased to 70 feet.
14	Sandy Cross	Coopers School	160	6	40	do.	Cased to 65 feet. Water comes from rock below a dike. Reported yield is 40 gallons a minute with 30-foot drawdown.
15	Sharpsburg	Sharpsburg School	168	6	40	Granite	Reported yield is 40 gallons a minute with 40-foot drawdown. Cased to 70 feet.

## Records of wells in the Coastal Plain province

Edgecombe County							Remarks
Well no.	Location	Owner	Depth (feet)	Diameter (inches)	Yield (gallons a minute)	Aquifer	
1	Enfield	Brick's Rural Life School	326	8	110+	Schist	Tested at 110 gallons per minute with 24-foot drawdown.
2	Lawrence	Z. V. Long	60	4 $\frac{1}{4}$	20	Sand (Cretaceous)	
3	Speed	Speed High School	200	4 $\frac{1}{4}$	10	do.	
4	Leggett	Leggett School	160+	4 $\frac{1}{2}$	10	do.	Water-bearing sand at 75 and 160 feet.
5	Battleboro	Mrs. H. B. Bryan	90(?)	6	4	(?)	
6	Rocky Mount	Meadowbrook Dairy	131	6	30	Granite	Cased to 80 feet. Yielded 11 $\frac{1}{2}$ gallons per minute with drawdown of 9 feet. Granite at 100 feet.
7	Tarboro	Henderson Lumber Co.	85	6	60	Sand (Cretaceous)	About 9 feet of drawdown while pumping approximately 20 gallons per minute.
8	do.	B. F. Taylor	90	6	20	do.	Not being used.
9	do.	Taylor Bottling Works Mrs. L. J. Newbern Newbern Grist Mill	130	2	10+	do.	The three wells flow 1 to 2 gallons a minute and yield about 10 gallons per minute to a suction pump.
10	do.	Town	349	8	0	-	Abandoned. (Listed in vol. 3, North Carolina Geol. and Econ. Survey, 1912, pp. 404, 405. Sand stratum is below marl.
11	Rocky Mount	Upper Coastal Plain Test Farms	68	6	30	Coarse sand, (cretaceous)	
12	Conetoe	Horace Wilkins	160	4 $\frac{1}{4}$	10	Sand, (Cretaceous)	
13	Pinetops	Pinetops Town	155	6	75	do.	
14	Macclesfield	Macclesfield	120	4 $\frac{1}{4}$	30	do.	
15	Crisp	Crisp School	130+	6	10+	do.	Supplies school.



Wilson County

Well no.	Location	Owner	Depth (feet)	Diameter (inches)	Yield (gallons a minute)	Aquifer	Remarks
1	Elm City	Town	187	6	100		Cased to 60 feet. Main supply. Tested at 100 gallons a minute 10 hours a day for 5 days with a 62-foot drawdown. Granite at 74 feet.
2	do.	do.	210	6	30		Auxiliary supply.
3	Town Creek	Mrs. W. T. Batts	150	4	9*	Sand, (Cretaceous)	Reported to have been tested at 9 gallons a minute for 48 hours with about 5-foot drawdown. Formerly used for soft drink bottling plant. Water comes from sand at 80 feet. Rock encountered at 150 feet.
4	Elm City	J. H. Johnson	36	6	2-3	do.	Water obtained from sand below blue clay.
5	Wilson	W. L. Mathews	150	5	15*	Slate	Cased to 106 feet. Rock at 90 feet.
6	do.	M. C. Campbell	150	5	6-8		
7	do.	J. W. Pender	118	6	15*	Granite	
8	do.	T. J. Blacksbear	140*	6	7-8	do.	Cased to 80 feet.

Northampton County

Well no.	Location	Owner	Depth (feet)	Diameter (inches)	Yield (gallons a minute)	Aquifer	Remarks
1	Vulture	J. A. Bradley	107	6	5	Gneiss	Water contains too much iron for use in washing clothes.
2	do.	Gaston Colored School	87	4 $\frac{1}{2}$	15	Gneiss (?)	Cased to bottom.
3	Camps Store	Gaston High School	87	4 $\frac{1}{2}$	30	Slate	Cased to 40 feet. Water contains no iron.
4	Seaboard	Mrs. Emma J. Taylor	113	4	4 $\frac{1}{2}$	Sand (Cretaceous)	
5	do.	Town	85	8	60	Sand and gravel (Cretaceous)	Has 10-foot screen. Yields 60 gallons a minute with 31-foot drawdown.
6	Gumberry	C. P. Gay	67	1 $\frac{1}{4}$	5 $\frac{1}{2}$	Sand (Yorktown)	Water soft; contains no iron.
7	Garysburg	Mrs. S. S. Suiter	128	6	8	Crystalline bedrock (?)	Cased to 90 feet. Water slightly hard; contains no iron.
8	do.	Robert Allen	67	4	10 $\frac{1}{2}$	Weathered bedrock	Water soft; contains no iron.
9	Garysburg, 4 miles SE. of Jackson	W. J. Long	65	6	12 $\frac{1}{2}$	Sand (Yorktown)	
10		State Prison Camp 112	248	6	14	Sand (Cretaceous)	First well hit granite at 296 feet; no water.
11	do.	Town	260	20-8	20	Sand and gravel (Cretaceous)	Gravel-walled well; screen from 220 to 240 feet.
12	Rich Square	W. C. Worrell	22	1 $\frac{1}{4}$	1-2	Sand, fine, (Wicomico)	Strainer
13	do.	do.	42	1 $\frac{1}{4}$	-	-	Do.
14	do.	Town	100	8	140	Sand (Cretaceous)	Has 15-foot screen.
15	do.	do.	70	-	120	Sand (Yorktown)	Screen. Water contains much iron.

Bertie County

Well no.	Location	Owner	Depth (feet)	Diameter (inches)	Yield (gallons a minute)	Aquifer	Remarks
1	Windsor	Town	334	8	300	Sand(Eocene)	Well flows; drawdown of 119 feet when pumped 300 gallons a minute.
2	do.	do.	273	8	60	Sand(Terti-ary)	
3	Woodville	C. B. Griffin	169	6	6	Sand(York-town) do. do.	
4	Kelford	Kelford Coca Cola Co.	196	6	28		
5	Roxobel	Farmville Woodward Lumber Co.	150	4	10		
6	Aulander	Town	348	8	510	Sand(Terti-ary and Cre-taceous)	Static level, 22 feet; drawdown of 75 feet when pumping is 510 gallons a minute.
7	do.	do.	160	3	20	Sand(York-town)	
8	Windsor	Thompson & Co.	256	2	-	Sand(Eocene)	Flows 10 gallons a minute.
9	Aulander	Mrs. C. Cowan	30	1 $\frac{1}{4}$	10	Sand(York-town)	



Martin County

Well no.	Location	Owner	Depth (feet)	Diameter (inches)	Yield (gallons a minute)	Aquifer	Remarks
1	Williamston	Town	500	8	300	Sand	Static level 29 feet; drawdown 88 feet.
2	do.	do.	453	8	508	Sands(Tertiary)	Static level 55 feet; drawdown 76 feet. Several screens used.
3	do.	James R. Everett	200	4 $\frac{1}{2}$	15	Sand(Yorktown)	Static level 33 feet.
4	Jamesville	W. R. Robinson	98	1 $\frac{1}{2}$	-	do.	Flows 5 gallons a minute. Static level approximately + 15 feet.
5	Robersonville	Town	390	8	125	Sand(Tertiary)	Static level 35 feet; drawdown 4 feet. Temperature 64 $\frac{1}{4}$ °F.
6	do.	Town	390	8	75	do.	Static level 35 feet. Temperature 64°F.
7	do.	Grime's Dairy	121	1 $\frac{1}{4}$	-	Sand(Eocene)	64°F. 20 feet of screen.
8	Hamilton	Town	140	1 $\frac{1}{4}$	7	Sand and shells (Eocene)	Flows 3 gallons a minute.
9	Williamston	Martin County Home	300	6	5	do.	Temp. 63 $\frac{1}{2}$ °F.  Flows 3 gallons a minute. 61 $\frac{1}{2}$ °F.
10	do.	Prison Camp 111	165	6	15	do.	
11	Oak City	Oak City High School	295	3	10	do.	
12	do.	L. J. Davenport	225	4	12	do.	
13	Bear Grass	Bear Grass School	235	4	60	do.	
14	Everett	V. Bunton	180	3	-	do.	

Pitt County

Well no.	Location	Owner	Depth (feet)	Diameter (inches)	Yield (gallons a minute)	Aquifer	Remarks
1	Grimesland	J. L. Edwards	180	3	-	Sand(Cretaceous)	Flows 2 gallons per minute. Temperature $62\frac{1}{2}^{\circ}\text{F}$ .
2	do.	J. B. Winfield	165	$1\frac{1}{4}$	15	Sand(Cretaceous)	Flows $\frac{1}{2}$ gallons per minute. Hardness 80 parts per minute.
3	Greenville	Northside Lumber Co.	128	6	-	do.	Flows 2 gallons per minute. Water level +2 feet.
4	do.	S. N. Crisp	92	$4\frac{1}{4}$	20	do.	Cased to 100 feet. Does not flow.
5	Pactolus	C. J. Satherwaite	293	$1\frac{1}{4}$	-	do.	Flows 5 gallons per minute. Water level +3 feet.
6	Stokes	H. W. Woolard	250	$1\frac{1}{4}$	3	do.	Flows 2 gallons per minute. Temperature $60\frac{1}{2}^{\circ}\text{F}$ .
7	Robersonville	J. C. Taylor	97	$1\frac{1}{4}$	-	do.	Water level - 40 feet.
8	Stokes	M. H. Whichard	225	$1\frac{1}{4}$	-	do.	Static level 20 feet; drawdown 45 feet when pumping 500 gallons per minute.
9	Bethel	J. L. Gurganus	192	$4\frac{1}{2}$	10	-	
10	do.	Town	445	8	100	-	
11	do.	do.	383	8	500	-	

Beaufort County

Well no.	Location	Owner	Depth (feet)	Diameter (inches)	Yield (gallons a minute)	Aquifer	Remarks
1	Washington	Town	173	8	350	Sands and shell rock (Tertiary) Limestone (Tertiary)	Static level 9 feet; pumping level 60 feet.
2	do.	do.	168	6	350	do.	Temp. 62½°F.
3	do.	Airport	215	8	171	Sand and shells (Tertiary)	Static level 8 feet; pumping level 14 feet.
4	do.	Charles F. Cowell	158	6	500	do.	
5	do.	Dr. Pepper Bottling Co.	149	8	180	Limestone (Eocene)	
6	do.	do.	142	6	75	do.	
7	do.	Coca Cola Bottling Co.	143	8	250+	do.	
8	Chocowinity	J. B. Winfield	165	2½	8	do.	
9	4 miles E. of Washington	R. O. Warner	95	1¼	8	Sand (Yorktown)	Temperature 62½°F.
10	Washington	S. M. Lee	140	1¼	15	Limestone (Eocene)	



## Records of water-level measurements in observation wells

Fluctuations of the water level in eight wells in the Roanoke and Tar River basins are being observed. The records of all measurements up to and including 1946 are contained in U. S. Geological Survey Water-Supply Papers 777, 817, 840, 845, 886, 907, 937, 945, 987, 1017, 1024, and 1072. Records for subsequent years are in course of publication. The depth to water in five of these wells, near the end of the year, is given in the following tables. The numbers of these wells are those used in the water-supply papers in which the measurements are recorded.

### Beaufort County

10-1. Town of Washington. At Washington, 50 yards northwest of rear of power and water plant. Jetted well 100 feet deep. Well is not pumped.

Water level, in feet below land-surface datum, 1946

Date	Water level	Date	Water level	Date	Water level
May 17	16.75	July 27	12.74	Oct. 1	11.61
June 26	9.51	Aug. 28	9.87	Oct. 29	10.82

11. Town of Washington. At Washington, about 200 yards northwest of round concrete reservoir. Depth 129 feet.

Water level, in feet below land-surface datum

Date	Water level	Date	Water level	Date	Water level
May 12, 1948	9.64	Oct. 27	9.56	May 30	8.75
June 2	9.62	Dec. 1	8.19	July 21	9.15
July 1	9.85	Dec. 31	8.35	Nov. 21	8.05
Aug. 4	9.57	Feb. 2, 1949	8.69	Dec. 30	8.07
Aug. 27	10.83	Feb. 25	8.60		
Sept. 30	9.98	Mar. 30	8.72		

### Halifax County

1. Frueler well. At Roanoke Rapids, one-half mile west of Seaboard Railroad station. Dug well, 15 feet deep.

Water level, in feet below land-surface datum, near end of year

Date	Water level	Date	Water level	Date	Water level
1932	8.8	1938	7.5	1944	5.5
1933	9.5	1939	7.2	1945	3.8
1934	6.3	1940	7.6	1946	7.6
1935	6.6	1941	11.0	1947	7.5
1936	8.3	1942	7.1	1948	4.0
1937	7.8	1943	9.2	1949	7.1

# Halifax County

1. Frueler well.--Continued.

Water level, in feet below land-surface datum, 1947

Date	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1	7.57	6.51	6.99	6.82	6.90	----	7.97	7.82	8.68	----	8.90	6.99
2	7.53	6.57	6.91	6.70	----	----	8.00	7.88	8.70	----	8.93	7.00
3	7.40	6.56	7.00	6.89	----	----	8.04	7.90	8.75	----	8.58	6.97
4	7.24	6.41	7.09	6.87	----	----	8.09	7.95	8.78	----	8.58	6.98
5	7.26	6.53	7.10	6.84	----	----	8.10	7.99	8.80	----	8.64	6.93
6	7.25	6.55	7.15	6.87	----	----	8.12	8.01	8.82	----	8.71	7.04
7	7.24	6.62	7.17	6.93	----	----	8.12	8.05	8.86	----	8.74	7.05
8	7.19	6.69	7.10	6.91	----	----	8.15	8.07	8.88	----	8.43	6.98
9	7.20	6.74	7.18	6.95	----	----	8.12	8.10	8.90	----	8.40	7.16
10	7.28	7.18	6.99	6.98	----	----	8.18	8.15	8.92	----	8.47	7.13
11	7.25	----	6.85	6.92	----	----	8.20	8.20	8.83	----	7.97	7.21
12	7.00	----	6.80	6.85	----	----	8.21	8.23	8.67	----	7.19	7.24
13	6.89	----	6.73	6.90	----	----	8.25	8.26	8.72	----	7.52	7.24
14	6.57	----	6.58	6.75	----	----	8.29	8.30	8.81	----	7.55	7.29
15	6.50	----	6.57	6.69	----	----	8.29	8.35	8.87	8.75	7.36	7.20
16	6.49	----	6.58	6.62	----	7.67	8.30	8.40	8.92	8.51	7.17	7.04
17	6.56	----	6.60	6.70	----	----	8.31	8.40	8.97	8.55	7.24	7.24
18	6.57	----	6.68	6.68	----	7.81	8.33	8.41	8.99	8.58	7.24	7.20
19	6.43	----	6.69	6.69	7.38	7.89	8.35	8.43	8.43	8.62	7.23	7.28
20	6.13	----	6.61	6.68	----	7.90	8.37	8.48	9.01	8.67	7.21	7.31
21	6.30	6.67	6.60	6.67	----	7.94	8.05	8.47	9.03	8.71	7.23	7.27
22	6.38	6.75	6.71	6.82	----	7.99	7.00	8.46	9.05	8.75	7.17	7.30
23	6.32	6.77	6.70	6.82	----	8.00	7.40	8.41	9.10	8.79	6.96	7.30
24	6.29	6.86	6.58	6.78	----	8.01	7.52	8.50	9.06	8.82	6.78	7.40
25	6.30	6.90	6.62	6.78	----	8.05	7.56	8.51	8.38	8.86	6.85	7.37
26	6.29	6.91	6.78	6.80	----	7.90	7.60	8.53	8.53	8.87	6.89	7.31
27	6.39	6.96	6.80	----	----	7.77	7.60	8.56	8.66	8.86	6.94	7.38
28	6.40	6.98	6.79	----	----	7.83	7.61	8.58	8.70	8.83	6.96	7.42
29	6.40	----	6.80	----	----	7.88	7.69	8.61	8.72	8.68	7.00	7.49
30	6.37	----	6.81	6.90	----	7.92	7.75	8.62	8.75	8.79	6.99	7.49
31	6.43	----	6.87	----	----	----	7.79	----	----	8.84	----	7.50

# Nash County

1. Alston well. About 0.5 mile north of Tar River and 8 miles south of Nashville. Dug well 25 feet deep.

Water level, in feet below land-surface datum, near end of year

Date	Water level	Date	Water level	Date	Water level
1932	12.6	1938	10.2	1944	7.4
1933	15.6	1939	9.6	1945	1.1
1934	8.9	1940	10.3	1946	7.7
1935	9.6	1941	11.6	1947	5.0
1936	5.7	1942	4.5	1948	2.8
1937	8.9	1943	4.5	1949	9.0

# Washington County

1. R. H. Lucas. About 1.5 miles west of Plymouth. Unused drilled gravel-packed well 42 feet deep.

Water level, in feet below land surface, near end of year

Date	Water level	Date	Water level	Date	Water level
1942	14.7	1945	12.7	1948	12.1
1943	16.8	1946	13.0	1949	14.3
1944	----	1947	11.8		

Water level, in feet below land-surface datum, 1947

Date	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1	----	12.23	----	12.74	12.79	14.44	14.67	13.00	14.28	----	13.12	11.37
2	----	12.38	----	12.66	12.85	14.47	14.62	12.85	14.34	----	13.16	11.46
3	----	12.43	----	12.16	12.92	14.49	14.45	12.73	14.40	----	----	11.55
4	----	12.30	13.40	12.09	13.05	13.05	14.55	12.63	14.45	----	----	11.62
5	----	12.39	13.42	11.98	13.06	14.57	14.48	12.54	14.50	----	----	11.64
6	----	12.48	13.44	12.02	13.13	14.61	14.52	12.60	14.55	----	----	11.73
7	----	12.49	13.47	12.15	13.18	14.66	14.54	----	14.45	----	12.19	11.84
8	12.80	12.59	13.20	12.29	13.30	14.72	----	----	14.39	----	12.06	11.84
9	12.73	12.71	12.77	12.31	13.36	14.72	14.40	----	14.30	----	11.96	12.02
10	12.73	12.77	12.65	12.44	13.44	14.76	14.39	----	14.25	----	12.00	12.07
11	12.79	12.86	12.64	12.44	13.48	14.81	14.35	----	14.16	----	11.74	12.09
12	12.78	12.90	12.66	12.37	13.49	14.86	14.27	----	14.02	13.45	11.23	12.15
13	12.50	12.92	12.67	----	13.52	14.89	14.23	----	13.97	13.39	11.27	12.20
14	12.23	12.92	12.56	----	13.57	14.88	13.97	----	13.95	13.19	11.32	12.28
15	11.82	12.90	12.44	----	13.65	14.86	13.87	----	13.96	12.84	11.23	12.22
16	11.65	12.96	12.42	----	13.69	----	13.82	----	14.03	12.66	11.16	11.75
17	11.77	----	12.48	----	13.74	----	13.81	13.49	14.12	12.40	11.26	11.63
18	11.68	----	12.62	11.61	----	----	13.85	13.55	14.14	12.26	11.35	11.60
19	11.50	----	----	11.66	13.86	----	13.87	13.61	14.12	12.25	11.31	11.67
20	11.08	----	----	11.73	13.90	----	13.42	13.67	14.13	12.28	11.24	11.76
21	11.25	----	----	11.83	13.96	----	13.24	13.75	14.15	12.37	----	11.76
22	11.43	13.14	----	12.07	14.02	14.98	12.94	13.79	----	12.46	11.24	11.86
23	11.46	13.13	----	12.18	14.05	14.99	----	13.85	----	12.55	10.88	11.91
24	----	13.19	----	12.22	14.09	15.02	----	13.93	----	12.66	10.61	12.08
25	----	13.24	----	12.30	14.11	15.06	----	13.98	----	12.72	10.66	12.03
26	----	13.28	----	12.44	14.14	14.98	----	14.04	----	12.74	10.80	11.57
27	11.82	13.33	----	12.50	14.19	14.81	----	14.10	----	12.77	10.98	11.52
28	11.92	13.38	----	12.64	12.24	14.77	----	14.14	----	12.81	11.08	11.52
29	11.99	13.35	12.47	12.71	14.28	14.68	13.27	14.20	----	12.85	11.21	11.67
30	12.03	----	12.59	12.75	14.34	14.66	13.36	14.24	----	12.92	11.28	11.74
31	12.13	----	12.70	----	14.41	----	13.44	14.27	----	13.01	----	11.79





















